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1. 1. SCOPE. ***This Statement of Work (SOW) defines the effort required for Operations & Management Support and Analysis & Technical Support on behalf of the NAVAL AIR SYSTEMS COMMAND (NAVAIR) Code 3.0 Competency and its Component Field Activities (CFAs). This support encompasses logistics and information technology engineering analysis, technical data conversion & distribution processes, and operation & management of manual and automated Technical Libraries, Repositories, and Data Control Centers. Specific codes requiring this support effort are the Technical Data Management TEAM Code 3.3 and the Joint Logistics Products and Processes TEAM Code 3.0J.***

2. BACKGROUND

2.1 General Task 3.3/3.0J TECHNICAL DATA REQUIREMENTS. *The contractor shall furnish services and products in support of the following components and component related areas of the Technical Data Management and Joint Logistics Products and Processes Programs:*

- *Technical Manual Program Support (Par 3.3A)*
- *Technical Manual Preparation and Publishing (Par 3.3B)*
- *Technical Data Conversion (Par 3.3C)*
- *Technical Data Distribution (Par 3.3D)*
- *Technical Libraries, Repositories, And Data Control Centers (DCC) (Par 3.3E)*
- *Technical Data Management And Technical Data Packages (Par 3.3F)*
- *Miscellaneous Technical Data Systems Support (Par 3.3G)*
- *Standardization, Policy And Procedures Support (Par 3.3H)*
- *Data Protection (Par 3.0JA)*
- *JEDMICS Site Management Operations (Par 3.0JB)*
- *CMIS Site Management and Operations (Par 3.0JC)*
- *Joint Logistics Products & Processes – General Support (Par 3.0JD)*
- *Security Requirements (Par 3.3/3.0JE)*
- *Other Requirements (Par 3.3/3.0JF)*
- *Emerging Technology Advisory Board (Par 3.3/3.0JG)*

3. CODE 3.3 OPERATIONAL, MANAGERIAL, ANALYSES, & TECHNICAL SUPPORT REQUIREMENTS.

3.1 General Task 3.3A TECHNICAL MANUAL PROGRAM SUPPORT. The contractor shall provide technical manual management, technical and analytical support for Naval Aviation Systems TEAM technical manual (TMs) program. The catalog of Naval Aviation TMs includes both traditional paper publications and emerging levels of electronic TMs. In order to accomplish the scope of work, the contractor shall have the expertise and ability (personnel, equipment, and facilities) to furnish the required support and products. The following tasks may be required as defined in individual task orders:

3.1.1 General Task 3.3A-1 Management Support.

1. The contractor shall analyze new and existing program requirements and engineering changes; estimate support requirements, coordinate, integrate, and implement numerous tasks related to

the acquisition, quality assurance, distribution, change control, and integration of multi-format technical data as one of the elements of Integrated Logistics Support.

2. The contractor shall analyze new and existing program requirements for their impact to existing technical data. Review shall include, but not be limited to, research of Technical Publication Deficiency Reports, Manual Change Requests, Engineering Investigation Requests, Quality Deficiency Reports, maintenance plans, military handbooks, technical manuals, weapon system publications, equipment specifications, operational descriptions, computer documentation, and other outstanding data to identify areas of inaccuracy, lack of coverage, or obsolescence. If there is valid impact, the contractor shall create an update requirement and maintain the analyzed data product in the current outstanding source data files. The contractor shall maintain an automated database for tracking all source data documentation.

3. The contractor shall prepare TM Concepts of Operation (CONOPS), from government provided source information, which shall provide an overall scope of the TM effort for a given program.

4. The contractor shall review and develop technical manual support plans and program data requirements for assigned tasks/programs. The contractor shall support implementation of those plans and requirements.

5. The contractor shall formulate information and prepare complex correspondence, reports, memorandum, letters, messages, reports, and customer responses etc., relating to assign technical manual matters. Any correspondence shall be expressed in a clear and concise manner.

6. The contractor shall assess, develop, modify, and implement technical data operations, procedures and tools which support cost efficient military readiness, participating at contractor, Intra and Inter-Service or other business meetings (e.g., Industry Standardization Committees or Associations) as required.

7. The contractor shall provide inputs and updates to logistics documents, such as Integrated Logistics Support Plans (ILSPs) in the area of technical data, program milestones, and schedules.

8. The contractor shall monitor, create, or review TM master schedules, to ensure quality and timeliness of products is achieved.

9. The contractor shall conduct engineering analyses and studies of NAVAIR manual/publication disciplines. Recommend Integrated Logistics Support planning alternatives and courses of action to meet fleet readiness requirements in response to Technical Publication Deficiency Reports.

10. The contractor shall provide curriculum and training in the areas of technical data and related configuration management activities.

3.1.2 General Task 3.3A-2 Requirements Analysis

1. The contractor shall analyze functional, user and system requirements and prepare appropriate documents to describe technical manual requirements and their development.

2. The contractor shall analyze the functional requirements for hardware and software for all technical manuals, along with the existing and future environment, to ensure that any other hardware/software deemed necessary to meet the functional requirements, are specified and formatted, correctly.

3.1.3 General Task 3.3A-3 Technical Manual (TM) Analysis, Reviews, Studies, and Reports. The contractor shall participate in start of work meetings, technical reviews, validations, and/or verifications to ensure proper content, format and technical accuracy as specified in any prime contractor or other preparing activity's statement of work. Contractor will document discrepancies discovered during any type of technical review for TM update. Contractor shall host reviews or support reviews at other designated government or contractor plants as required.

1. Technical Manual Reviews. The Contractor shall review Government Furnished/Contractor Developed Technical Manuals in draft or final form for form and content. Review of COTS TMs shall include a determination of the requirement for additional supporting documentation and recommendation for the Government to accept or reject the document. The contractor shall attend and provide technical expertise and recommendations at Technical Manual In-Process-Reviews (IPRs), validation and verifications and submit a technical report.

2. Analysis of Technical Manual Processes and Procedures. The contractor shall plan and conduct analysis of specified Technical Manual development and other support processes and procedures. The contractor shall collect necessary data from identified sources, perform quantitative analysis of data and submit the results of this analysis. Briefing materials may be required to accompany these reports.

3. Validation and/or Verification Plans. When required, the contractor shall prepare and furnish Validation and Verification Plans.

3.2 General Task 3.3B TECHNICAL MANUAL PREPARATION AND PUBLISHING. The contractor shall prepare and update aeronautical technical manuals (TMs) under the cognizance of the Naval Air Systems Command's designated technical manual management activity/activities. The contractor shall incorporate technical manual source data furnished by the government and/or perform research and original writing as required in task orders. The types of technical manuals included in the inventory include, but are not limited to, those listed in Attachment A. In order to accomplish the scope of work, the contractor shall have the expertise and ability (personnel, equipment, and facilities) to furnish the required services and products of the Naval Aviation Systems TEAM technical manual program as specified in task orders. Those technical manual efforts that are to be firm fixed priced are described in Attachment D.

1. Technical manual source data will be furnished to the contractor by the Cognizant Field Activities (CFA), or NATEC, for incorporation into technical manuals. Source data is validated material provided by the government that forms the basis of the technical manual update. Source data may be a complete draft or marked-up copy of the manual; it may

include a printed copy of the manual, reproducible copy and art work, negatives, sketches, photographs, and digital files. Source data may include Engineering Change Proposals, Technical Directives, engineering drawings, government written manuscript copy, Manual Change Releases (MCRs), dispositioned Technical Publication Deficiency Reports (TPDRs) and/or other documentation required by the contractor to prepare the items ordered. The source data to be furnished to the contractor by the CFA or NATEC will be listed in the TMCR Work Statement/Order and provided prior to issuance of the order, or in less frequent instances, incrementally as work progresses.

2. Technical manual products will include traditional page-based manuals and electronic technical manuals. The range of electronic technical manuals shall include, but not be limited to, those described on the Navy CALS Web Site: http://navysgml.dt.navy.mil/ietm/classes.html.

3. In order to accomplish the scope of work, the contractor must have the expertise and ability (personnel, equipment and facilities) to perform research, writing, editing, illustrating and related graphic arts actions, typing, layout and photographic tasks, validating and related support services, production of digital files and media, and provide accurate and timely deliveries of the aeronautical technical manuals ordered hereunder. The contractor shall have the expertise and ability to project aeronautical and weapons maintenance practices and principles into government technical manuals.

4. The contractor shall be fully conversant with the requirements of the applicable specifications including, but not limited to MIL-STD 3001 and those listed in **Attachment B, B-1, and B-2 of the Statement of Work (SOW).** Therefore, detailed instructions covering basic standard grammatical rules, spelling, abbreviations, writing styles, or detailed instructions on the preparation and production of related drafting, illustrating, or other art and graphic services are not provided. The issues of the documents indicated in **Attachment B** of the SOW are the issues listed in the current Department of Defense Index of Specifications and Standards (DODISS); however, offerors shall also be fully conversant with amendments and all previous issues. Pertinent specifications and standards, with amplifying instructions, deviations, and all required source data for accomplishment of tasks, will be cited in each individual TMCR Work Statement/Task Order. Final interpretation of specification requirements and approval/issuance of deviations are the sole responsibility of the Naval Aviation Technical Data and Engineering Services Command (NATEC), and approval must be obtained, in writing, prior to authorizing the contractor to deviate from specification requirements.

5. Efforts involving classified material shall be performed in accordance with DOD 5220.22-M, Industrial Security Manual for Safeguarding Classified Information. All classified documents will be page and paragraph marked as required by DOD 5220.22-M, as modified by OPNAVINST 5510.1H, Department of the Navy Information and Personnel Security Program Regulation.

6. As specified by task order, page categories for page-based technical manuals may include: Change pages, New pages (existing manuals), and New pages (new manuals) to be furnished and delivered as new manuals, changes and revisions/pickup revisions as specified in

individual task orders. Electronic technical manuals may be furnished as scrollable or frame-based products as defined in task orders.

7. As specified by the government, text shall be prepared from Commercial Off-the-Shelf (COTS) publishing or word processing software packages (e.g., Arbortext, Interleaf, Ventura, Word, etc.); illustrations shall be prepared in raster or vector formats as required. Compliance with the Continuous Acquisition and Logistics Support (CALS) initiative may be required with data being delivered in formats including, but not limited to Standard Generalized Markup Language (SGML), HTML, and XML.

8. As specified in individual task orders, the contractor shall develop and/or integrate technical data to satisfy multiple customer usage requirements such as, but not limited to: maintenance, training, parts ordering.

9. Material such as outlines, reproduced (in-process review) copies, proof copies, delivery media, electronic transmission, etc. shall be specified in individual task orders. Requirements for generation from digital revisable masters of products (e.g., Portable Document Format or Extensible Markup Language) required to support digital replication, distribution, storage, and access shall be defined in individual task orders.

10. All templates, style sheets, Formatting Output Specification Instances, scripts, and other processing information developed by the contractor under task orders shall be furnished to the government. When required by the government, the contractor shall utilize government furnished templates, style sheets, and scripts in the development or update of documentation.

11. Document Type Definitions, Data Dictionaries, and Tagging Conventions Guidance shall be prepared or updated by the contractor as required.

12. All master revisable files for new manuals, changes and revisions/pickup revisions shall be the property of the government and shall be appropriately indexed, packaged, and shipped to the government when required.

13. On an as required basis, at designated sites, the contractor shall operate and manage the government's in-house publishing system.

14. Quality Assurance (QA) and Quality Control is the responsibility of the contractor. The QA requirements for all Technical Manuals and/or source data to be procured shall be in accordance with ISO 9000-1-94, ISO 9000-2-93, ISO 9000-3-93, AND ISO 9000-4-93. Technical Manual Quality Assurance Program Guide, AL-855TM-GYD-000, shall be used for guidance in the operation of a Quality Assurance Program.

15. Quality Control of Production Processes. The contractor shall establish a TM Quality Assurance Program (QAP) to ensure the development of technically accurate and complete technical manuals. This QAP will encompass all phases of the contractor's technical manual operation from initial receipt of source data through final product delivery and acceptance. The QAP must ensure development and continued use by the contractor of adequate controls through all areas of technical manual development. The Navy reserves the right to review the contractor's QA processes at any time.

16. Product Reviews and Validation and/or Verification. The contractor shall validate all TMs and/or source data furnished under this contract. Initial guidance meetings and in-process reviews will be conducted by the government on an as required basis, as scheduled jointly between the government and the contractor. When required by the TMCR Work Statement/Delivery Order, reviews, validation and/or verification shall be conducted at a CFA and or fleet site. These events will be chaired by the requiring activity's representative and supported by the contractor. Guidance information regarding these events is available in the TM Quality Assurance Program Guide, AL-855TM-GYD-000.

17. Acceptance for quality is primarily vested in the designated representative of the CFA for whom the documentation is prepared. Policy decisions regarding quality and conformity of the technical documentation shall be referred by the designated representative of the CFA to the NATEC Quality Assurance Department.

18. The following DEFINITIONS and PROCESSES apply to the extent defined in individual TMCRs/Task Orders:

    MANUAL OUTLINE. Technical manual changes will not require outlines. If a revision to a manual is ordered, an outline shall be prepared unless specifically deleted as a requirement by the order. An outline is required and will be specified as a deliverable item in the TMCR Work Statement/Order for all new documentation or existing documentation that is to be reformatted to a new specification. The outline must be approved, in writing, by the ordering officer prior to commencement of work on the manual. If response is not received within forty-five (45) days, the contractor will advise the addressee. The outline shall be specific enough to indicate all major and subordinate divisions of the manual or document for work package manuals by work package and sub-work package titles and for non-work package manuals by chapter and paragraph titles and shall be prepared in accordance with specifications cited in the TMCR Work Statement/Order.

    PROOF COPIES. When specified in the TMCR Work Statement/ Order, proof copies shall be furnished for technical manual updates or new manuals being prepared. The proof copies shall be reproduced copies of the master reproducible copy, suitable for review of the completed work by the CFA. The government will review the proof copies and advise the contractor by return of marked-up proof copies (within the calendar days specified in the TMCR Work Statement/Order) if any changes are required prior to preparation of deliverable media; or if no changes are required, contractor will be directed to proceed with preparation of the deliverable media.

    MASTER REVISABLE FILES. The master revisable files are the digital authoring source files; both Text and Illustrations, and companion style sheets, templates, and other scripts. **All master revisable files for new manuals, changes and revisions shall be the property of the government and shall be delivered to the government.** In order to accomplish work, master revisable files will be either forwarded to the contractor or access to these files will be made available to the contractor by the government.

    REPRODUCIBLE COPY. Guide for producing reproducible copy shall be as defined in specifications, with applicable amendments and deviations, as specified in the TMCR

Work Statement/Order. When required, artwork (illustrations), either provided by the government as source data or prepared by the contractor, shall be placed on the reproducible page. Reproducible copy for title pages of manuals shall be furnished for review if specified in the TMCR Work Statement/Order.

DIRECT IMAGE COPY. Direct image copy shall be prepared in accordance with Specification MIL-P-38790A and deviation(s) cited in TMCR Work Statement/Order. All direct image copy pages furnished shall be high contrast positives, clear, and legible with sharp clear lines in both text and illustrations. Text pages shall be on 8-1/2" x 11" sheets with an image area of 7" x 10" including marginal copy. Foldout illustrations shall not exceed 11" x 45" in page size and shall have a maximum image area of 10 1/4" x 36". All foldout pages shall be prepared as right hand pages to be printed on one side only. The deliverable product shall be suitable for use by the government in any direct image printing or reproduction process selected.

FACSIMILE/REPRODUCED COPIES. Clean, legible, black and white copies of manuscript or other material, reproduced in accordance with best commercial practice, to be utilized as interim copies prior to the completion of the technical manual being printed or other uses as warranted by task requirements such as in-process reviews (IPRs).

CD ROM. Digital files shall be delivered on DOS compatible media as identified in the TMCR Work Statement/Order. CD ROM shall be ISO 9660 compliant with extensions or other standards as defined in the TMCR Work Statement/Order.

PORTABLE DOCUMENT FORMAT (PDF). When specified in the TMCR Work Statement/Order, Portable Document Format (PDF) files shall be furnished.

ASSEMBLY AND PRINTING INSTRUCTIONS. When required by the TMCR Work Statement/Delivery Order, these detailed instructions shall be furnished by the contractor with the TM deliverables to provide detailed instructions to the printer to assure that pages and illustrations of the manuals will be assembled in proper sequence and that pages are folded as required (i.e., foldouts). These instructions shall be furnished on Printing Sequence and Collation Record, or local Defense Automated Printing Service Detachment Office (DAPSDO) equivalent. These forms are required for both hardcopy and digital deliveries and are available from the cognizant local DAPSDO.

RECORD OF SOURCE DATA INCORPORATION. For aeronautical technical manual changes/revisions/pick-up revisions, a record of the source data which has been incorporated in the manual(s), and its location in the text/figures/tables, will be required. The record of source data incorporation shall reflect the type of data included in the technical manuals, such as, but not limited to, Technical Directives (TD), Engineering Change Proposals (ECP), Manual Change Requests (MCR), Technical Publications Deficiency Reports (TPDR), Interim Rapid Action Changes (IRAC), and Design Change Notices (DCN). If no identifiable records are incorporated, a record of source data incorporation shall not be required. The source data incorporation record shall be prepared and delivered digitally, in a format and media mutually acceptable to the contractor and the government.

SUPPLEMENTS. Supplements are subsidiary documents that complement the information contained in certain technical manuals.

PAGE. A "page" is defined as that data depicted on one side of a printed sheet within the page size limitations of the governing specification. A page unit shall be considered to be 8 ½" X 11". Foldout pages shall be prepared for printing on one side only; the page count for foldouts is determined by the number of page units in the foldout length.

a. Types of pages are defined as follows:
   1. New Page: Any page that has not previously existed in the aeronautical technical manual being prepared/updated.
   2. Change Page: Any modification of an existing page in the technical manual being updated. This type of action may involve the addition, deletion, or modification of information of an existing page. Changed/revised pages shall include new pages generated by the "rollover" of technically unchanged information.
   3. Unchanged/Renumbered Page: Any page renumbered or intentionally left blank to maintain sequential integrity; a page picked up as backup; an unchanged page included in a revision. These pages shall not be considered for pricing purposes.

TEXT. Text is defined as all technical manual written material and entries including front matter.

ILLUSTRATIONS. Illustrations are artwork that depicts various subject matters prepared in various styles, techniques and media including line art, phototracing, and lettering, in accordance with the applicable specifications cited in the TMCR Work Statement/Order. Illustrations shall clearly, adequately and economically portray the information to be illustrated. Examples of illustrations which may be required in technical manuals/changes/revisions/pick-up revisions are frontispiece (assembled view), exploded views, sectional/cutaway views, test set-up diagrams, procedural and functional block diagrams, outline drawings, wiring diagrams, schematic diagrams, line drawings, performance charts, logic diagrams and flow charts. Utilizing government furnished source material, illustrative material to be furnished by the contractor may be original art or update or modification of existing art which may require research of engineering drawings or other reference materials. Line art or drawings shall be of high reproducible quality capable of maintaining consistent high density tonal values.

CHANGES. Changes to existing aeronautical technical manuals may consist of changed or new pages in existing technical manuals. Changes shall be utilized to modify existing material, correct existing errors or omissions in the text or illustrations and may include but are not limited to additional information as a result of configuration, design and modification changes, or to introduce additional information as a result of authorized substitution of parts, assemblies, and/or components on the equipment covered by the manual(s).

REVISIONS. Revisions to existing technical manuals are the subsequent editions of the manuals which supersede the preceding editions. A revision is generally called for when the cumulative total of existing changed pages plus the pages affected by the current change exceed 60% of the manual, or when a manual of sixteen pages or less requires updating. Revisions shall include all previous and current changes and any new data resulting from equipment configuration, design, and modification changes.

(a) Pick-up revisions refer to those revisions that incorporate changed material but do not involve updating all pages in the issue. The pick-up revision shall incorporate the basic manual (or latest revision), all changes subsequent to the basic/latest revision, and the new data requiring issuance of the latest change. The changed material shall be properly identified, numbered, and collated in the pick-up revision and the updated pages shall be identified in the front matter of the manual. Pick-up revisions shall be properly collated, complete manual issues. Only those changed, revised, or added Work Packages/Pages shall have the current change number and date. Other existing Work Packages/Pages shall be reissued without changes to dates, change symbols or other modification. A supersedure notice shall be placed on the title page as follows:

"This manual supersedes A1-XXXXXX/NAVAIR XXXXXX dated _____ with change information. Change _____dated _____ has been incorporated in this issue and makes this a complete manual."

MANUSCRIPT (DRAFT) COPIES. When specified in the TMCR/Task Order, manuscript copies (or draft) for a new manual shall be provided. The manuscript shall be edited and complete in all respects, and shall contain all front matter, text, illustrations, and tables to be included in the manual as specified in the technical content specification. The manuscripts to be furnished shall be in accordance with the style, format and technical content specifications specified in individual task orders.

NEW MANUALS. A new (basic) manual is the initial issue of a manual covering any type of aeronautical weapon system or equipment which is not presently in the NAVAIR system. New (basic) manual(s) will usually require preparation of manual outline(s) and manuscript (draft) copies. The manuals shall be prepared in accordance with the style, format and technical content specifications cited in individual task orders.

3.3 General Task 3.3C TECHNICAL DATA CONVERSION. The contractor shall accomplish conversion of data of various types (e.g., technical manuals, engineering drawings, program data, etc.) to other formats as defined in individual task orders and described in Attachment D of this Statement of Work (SOW). Detailed conversion specifications are provided in Attachment B, B-1, and B-2 of this SOW.

1. A task order may require that a specific application software package be used to generate the data (e.g. AutoCAD, ComputerVision CADDS 4X or Theda, Interleaf, or Arbortext). It may

require compliance with the Continuous Acquisition and Logistics Support (CALS) initiative, with the data to be delivered in one or more of the following formats:

A. Standard Generalized Mark-up Language (SGML)/Extensible Markup Language (XML). Applicable specifications and Document Type Definitions (DTDs) (including appropriate versions) shall be specified in individual task orders. Selected DTDs may include, but are not limited to, those applicable to:

- MIL-STD-3001, Preparation of Digital Technical Information for Multi-Output Presentation of Technical Manuals
- MIL-M-81927, Manuals, Technical: General Style And Format Of (Work Package Concept)
- MIL-M-38784 Manuals, Technical: General Style And Format Requirements
- MIL-STD-38784 Standard Practice for Manuals, Technical: General Style And Format Requirements
- NAVSEA C2 DTD
- MIL-PRF-87269 Data Base, Revisable - Interactive Electronic Technical Manuals, for the Support of

B. Initial Graphics Exchange Specification (IGES)

C. Computer Graphics Metafile (CGM)

D. CALS Type IV MIL-PRF-28002

E. Portable Document Format (PDF)

2. Delivery media (e.g., tape or CD-ROM) will be specified in task orders.

3. The Contractor shall prepare the data/media (either active or historical) for data conversion (e.g., hard copy to microfiche, drawings to microfiche, paper to digital, etc.) and process for conversion.

4. The contractor will perform an analysis of Technical Data including its format and content, rapidity of change, data usage, longevity of data over the program life cycle, and relationship of data to other data elements. The contractor will make recommendations to the government, based on the above criteria, concerning the type of format most appropriate for the data.

5. Conversion efforts shall include 100% quality assurance of converted products for their intended purpose. Specific levels of quality assurance will be specified in each delivery order.

6. The contractor will provide Engineering Drawing conversion by converting drawings and associated documentation from existing hardcopy formats to more advanced electronic formats and levels such as; but not limited to the following:
Level 2, Raster Image plus Cleanup: Contains Level 1 output enhanced by cleanup and deskewing. Removal of unwanted entities from the original and squares the drawing.

Level 4, Automatic Vectorization: Converts the drawing to a vector representation of the raster scan, creating files that can be loaded into a CAD system for editing. Layers can be created.
Level 5, Text plus Auto Vectorization: Contains Level 4 output which is enhanced by ASCII text replacing the automatically vectorized text. Text and dimensions are now recognized as text rather than vector data and can be edited. The legibility is significantly improved.
Level 6, Enhanced Vectorization: Level 6 adds intelligence to the drawing by cleaning up the vector quality. Circles, arcs, and other geometry are true and precise geometrics. Lines are continuous and layered. Objects are clear and orthogonally correct.
Level 7, CAD Perfect: Level 7 results in a specified CAD perfect file. Video tracing or direct CAD redraw are two processes that produce this level of conversion. All entries are dimensionally and orthogonally correct with fully editable vectors and text. Layers, blocks, symbols, line types and current ANSI standards are incorporated.
Level 8, CAD to CAD conversion: The conversion of one CAD application file to another application file. An example would be to convert a CADKEY file to AutoCAD.
Level 9, 2 Dimensional (2D) CAD Perfect Level 7 application file, to 3 Dimension (3D) Definition Model. Configuration geometry shall be modeled as full-scale (1:1) solid, surfacing or 3D wireframe techniques. The 3D definition techniques shall vary according to the type of part/assembly being presented for conversion.
Data delivered to the Government will be indexed in accordance with the Engineering Drawing Conversion specification contained in Attachment B-1 of the Statement of Work.

7. Document and Image Processing. As specified by task order, the Contractor shall microfilm or otherwise scan into databases (digital, CD-ROM, etc.) management and engineering documents furnished by the Government. If a government furnished system is not available, the Contractor shall provide a data retrieval system to locate and reproduce the original documents. Written operating instructions or desk book procedures may be provided with the task order.

3.4 General Task 3.3D TECHNICAL DATA DISTRIBUTION. The following tasks may be required in support of technical data distribution as defined in individual task orders.

1. Contractor shall support the distribution, initial outfitting, and supply of technical data (including technical directives). Through maintenance of user profiles and organizational account data, the contractor shall determine access and distribution requirements (including correct format, media and quantity) for all technical data products in accordance with distribution statements. Contractor shall maintain history, status, and meta-data applicable to technical data. The data shall be administered and capabilities provided for ad hoc reporting, queries, sorts, etc.

2. Based on user functional requirements the contractor shall recommend the most effective delivery method for the technical data and appropriate media.

3. Contractor shall maintain an accurate and up to date file of activity's requirements for automatic distribution and order/requisition documents for DOD and commercial sources.

4. The contractor shall support customer requests for data whether online access, softcopy, or hardcopy distribution or a combination.

5. Contractor shall provide both research and support in the management and maintenance of documentation databases and the processing of initial outfitting and requisition processing. Review specified records to determine irregularities and take appropriate corrective actions accordingly.

6. The contractor shall provide research and support in the management of data requested under the FOIA, Cash Sales, and Foreign Military Sales programs.

3.5 General Task 3.3E TECHNICAL LIBRARIES, REPOSITORIES, AND DATA CONTROL CENTERS (DCC).

1. In accordance with requirements set forth in task orders, the contractor may be required to support, operate, maintain, store, and manage the Navy's digital and non-digital drawing files, technical manual libraries, technical manual data package repository, configuration management and other programmatic data files and databases. These efforts may be required at either Navy facilities, other DOD facilities, or at DOD contractor facilities, as specified in individual Task Orders. The term library(ies) shall be used to mean library, repository, or DCC. This effort is in direct support of Naval Aviation Systems TEAM mission areas, including aircraft, weapons, and target systems/subsystems and related items.

2. Libraries support the administrative and general technical data requirements directly applicable to the day-to-day operations of TEAM sites. Libraries operate as independent functional entities. A library is a location where data/media are maintained for storage, retrieval, replication, distribution, and archiving. The library/repository/DCC maintains data/media by providing data management functions and by providing accountability of data/media to support requirements for such data. The contractor shall operate libraries and provide to the Government data/media management, confidential, unclassified, and sensitive administrative project support as required by Task Orders. When Secret/ Classified data/medium is maintained, libraries shall establish a Secret/Classified Document Control process to provide accountability of data/media and to perform data management functions necessary to support the various libraries.

3. The Contractor shall operate and maintain an inventory of technical data/media (SECRET in accordance with OPNAVINST 5510.1H and the NAWC-WPNS Note 5511, and confidential and unclassified in accordance with the OPNAVINST 5510.1H). The contractor shall maintain an accurate inventory using an automated database tracking system. The tracking system shall be capable of providing Reports necessary to ensure full and accurate accountability of SECRET data/medium, i.e., Secret Log, Destruction Log, Archival Log, Permanent Retention Log. Software changes to or configuration management of the database may be required to be performed by the Contractor on a system compatible with systems and networks used by the Government's technical area that is supported by the libraries including technical area network and local area networks. The Contractor shall provide Data Control and Data Management familiarization, training and quality control to the Government/Contractor during the transfer/transition of data/medium inventories NLT 10

days before end of the contract period of performance. The contractor shall assume responsibility for all related tasks, including mail operations related to libraries.

4. The Government will provide copies of instructions, procedures, and regulations required for the management of the libraries. It is the Contractor's responsibility to maintain the most current issue or changes, to ensure that the Contractor's employees have a thorough working knowledge of these instructions and procedures and that they are kept abreast of any changes that apply to the technical tasks defined in this SOW. Such documentation shall include, but not be limited to, those listed in Attachment C.

5. The contractor shall perform the following technical tasks as defined in individual delivery orders:

    A. Data/Media receipt, review and entry.

        (1) The Contractor shall receive all data/media for the library, log, control and identify the data/media (Classified, Unclassified or Confidential) for applicable storage location. Review for security classification, appropriate page markings, distribution and destruction statements, and downgrade information. Quantity of data/media received will be estimated for each task order. The Contractor shall follow security procedures in accordance with Industrial Security Manual, DOD 5220.22-M, OPNAVINST 5510.1H and other Security guides and instructions such as appropriate guidelines, and comply with DD-254.

        (2) The contractor shall review data/media received for completeness, condition and accuracy (i.e. classification markings, source identification, revision level, number of copies, sequential page count, and issue date) as per the attached transmitting paperwork and Standard Operating Procedure (SOP) requirements. If appropriate, the cognizant Data Manager shall be notified upon receipt of data and shall be advised of any discrepancies immediately.

        (3) The Contractor shall log incoming data/media, complete document subject line, date, originator, date received, classification, disposition; shall assign control number and process for card identification, bar-code (as appropriate); and shall file in appropriate location to maintain an accurate, secure, and easily retrievable data/medium inventory. The Contractor shall enter data/media elements (e.g., date received, accession control number, issue date, master or copy, number of copies, security classification, NAWCWPNS CDC number, etc.) into the designated automated (bar-coded) library database to provide automated traceability and retrieval using bar coding (as appropriate). The Government will provide the Contractor a list of data managers and Government representatives who shall be notified either by written or oral notification, within a specified time of receipt of data/media (as specified in Task Order) The Contractor shall notify the appropriate individual of any discrepancies noted in the data/medium review.

    B. Data/Media Control.

(1) The Contractor shall maintain data/media in the identified library in a space provided by the Government or at the contractor facility, as specified in the Task Order, that allows easy retrieval of the data/media and complies with all applicable security procedures and regulations. The Contractor shall ensure a secure environment of all controlled and uncontrolled data/media up to and including SECRET and SECRET NO CONTRACTOR (See DD254). With approval of and briefing from the controlling agency, the contractor may be authorized to control Limited Distribution (LIMDIS) & NATO information. The current level of data/media inventory for each library shall be specified in the Task Order. However, new data/medium received and old or duplicate data/medium destroyed on a continuous basis may increase or decrease the total inventory.

(2) The Contractor shall be responsible for the control of data/media access, data/media removal (transmitted, on-site storage, archived or destruction), data/media update, i.e., incorporation of change pages, data reproduction and data/media destruction for all library inventories. Each transaction of a SECRET item shall be annotated as required by local command for incorporation into the SECRET log to ensure a complete audit trail is available for every master and copy of every SECRET data item.

(3) The Contractor shall maintain a walk-up service counter area for data/medium check-in and check-out. Responsibilities shall include: (1) control and access, (2) control of removal, (3) control of changes, and (4) control of destruction of all data/medium. In addition, the SDCC/DCC personnel shall accept and serialize all Department CLASSIFIED, properly marked "Burn" pick-up. Counter services are required on a continuous basis throughout the normal hours of operation of the site (as defined in Task Order).

(4) The Contractor shall maintain a current "Need-to-Know (NTK) List provided by the Government. The NTK list shall identify, at a minimum, system project authorization, an individual, code, telephone number, address, and level of access. If other than DOD personnel require access to the project data/media, additional information is required and shall include: contract number/task order number and expiration date of required access. The Contractor shall ensure that ONLY AUTHORIZED PERSONNEL are allowed to view or check-out data/media controlled by the library

(5) The Contractor shall verify that a requester has the appropriate NTK and security clearance prior to releasing classified or sensitive data/media. If a courier is utilized, either government or contractor support, the Contractor shall verify the courier has current identification to transport classified data/medium (i.e. NAWCWPNS signed/approved courier papers). The Government furnished Security Access List will cite the clearance level for all Government and Government Contractor personnel.

(6) The Contractor shall also perform data entry to update and maintain data base

tracking (e.g., bar coding) systems or other automated systems as appropriate.

C. Data/Media Management.

(1) The Contractor shall perform record-keeping for data/media identification, location, access history and change history to include configuration status accounting of project/administrative data/media. The Contractor shall provide to the appropriate Government official and the Contracting Officer's Representative (COR)/Task Order Manager periodic status reports for management and contractual accountability purposes. The Contractor shall also report to the appropriate Government official, all data/media discrepancies, identify any update requirements and schedules for updating of data/media items when applicable.

(2) The Contractor shall enter data/media elements (i.e. data received, accession control number, issue data, master or copy, number of copies, security classification, Classified Document Control number, etc.) into the designated library database to provide automated tracability and customer researchable characteristics for access and retrievability.

(3) The Contractor shall maintain and update project support documentation including military specifications, standards, Data Item Descriptions (DID), and security instructions in hard copy or electronic media. The Contractor shall purchase or request, through government technical data distribution centers or vendor designated distributor, required support documentation. The Contractor shall maintain and update such documentation.

(4) The Contractor shall provide data conversion from electronic media to hardcopy or electronic distribution via a file server (government or contractor-provided as specified in Task Order) when required for data/media distribution/access.

(5) For automated library database information systems, the contractor shall perform periodic (e.g., daily) backups and polish to the Library database system to maintain database information integrity. The Contractor shall provide a periodic disaster backup file and store at a mutually agreed upon back-up site approved by the Government.

(6) The Contractor shall be responsible for database system administration by providing software integrity validation management, implementing of software changes and modifications, software version updating, and ensuring multi-user interfaces.

(7) The Contractor is responsible for providing Performance and Cost Report with supporting information that will allow easy analysis of hours, labor and other costs that track the tasks progress.

D. Inventory

(1) The Contractor shall perform a joint (Contractor/Government) random inventory of all active documents. A periodic database inventory report will be generated and inventory format shall be barcode driven. In addition, a self-sighting SECRET inventory report by users shall be sent to all local engineering community personnel as copies identify as "borrowed" active (on-loan). Database inventory reporting shall reflect the joint sighting and any discrepancies shall be reported in accordance with current security regulations and requirements.

(2) The Contractor shall maintain a complete and up-to-date listing, SECRET Log (SECRET Baseline Document) of all SECRET data/items including all copies received and reproduced, every transaction that has occurred to each SECRET data item, check-in/out, destruction, archiving, etc.)

E. Data Reproduction.

(1) The Contractor shall process data/media for reproduction based upon user/customer request. The Contractor shall prepare the appropriate reproduction request forms and forward complete package in accordance with local SOP and OPNAVINST 5510.1H, as appropriate.

(2) The Contractor shall track each request to ensure the timeliness and quality of the product. The Contractor shall notify the Data/Task Order Manager of the date each product will be completed or if such request will not meet the scheduled requirements as provided on the Work Order Request.

(3) The Contractor shall provide duplication of data/media for in-house data/media reproduction.

F. Data Acquisition and retrieval support.

(1) The Contractor shall ensure that all project related data/media is requested through the Project Data Manager or designated Government representative using the appropriate Work Order Request Form.

(2) The Contractor shall acquire, control, and manage a complete set of Data Item Description (DIDs) in support of government access to current contract preparation and contract technical reviewing requirements. The Contractor shall utilize the DOD on-line DODISS system for current DIDs and Specifications or other resource as identified in Task Order. The Contractor shall prepare the documentation to provide or purchase new, superseded or obsolete technical data/media needed at the site, i.e., Data Item Descriptions, Military Standards and Technical Manuals, operator manuals, and other instructions and technical data, both in hard copy and automated media such as microfilm/microfiche, CD-ROM, etc.

(3) The Contractor shall periodically review acquired data/media to determine their current status, i.e., currency of DIDs, Standards, etc. Upon written approval by the Government, the Contractor shall order and update files or make distribution.

G. Management of Master Data Packages or Master Files. The contractor shall inventory, maintain, and store all digital and non-digital master data packages and files as defined by task orders.

H. Management of Technical Publication Deficiency Reports (TPDRs) and Interim Rapid Action Changes.

(1) As defined by task order, the contractor shall manage the generation, identification, transmittal, receipt, tracking, monitoring, disposition and incorporation of TPDRs.

(2) As defined by task order, the contractor shall manage processing and tracking of Interim Rapid Action Changes. Reports shall be developed as required.

I. Technical Documentation Research. The contractor shall perform customer research services as required by task order. The contractor shall perform research and verification tasks related to technical documentation. Research may include, but not be limited to, determination of data availability, location, format, media, verification of publication numbers, national stock numbers, Interim Rapid Action Changes, and Manual Change Requests, etc. TPDRs may be researched for appropriate cognizant field activity, validity of technical publication number, work package, paragraph, etc. Publications, drawings, and other data may be researched for aircraft applications, joint service applications, cancellation, archiving, reconciliation between hardcopy/aperture cards and digital images, resolution of drawings not on file, and other purposes.

J. Relocation of data and satellite libraries.

(1) The Contractor may be required to move/relocate large volumes of data/media from one location to another location due to reorganization or change in Government requirements. The Contractor shall ensure that prior written approval is obtained from the COR/Task Order Manager and Ordering Officer prior to any relocation of data. The Contractor shall be responsible for the transfer of the data/media from one designated site to another in accordance with established security procedures. Any changes to the Contractor facility, i.e., address change, modification, relocation, etc. shall be reported in accordance with the DOD 5220.22-M

(2) The Contractor shall notify the COR/Task order Manager when the site is inadequate in terms of insufficient storage space for the quantity of data to be stored. The Government shall identify and furnish additional space or facilities, if required, for the purpose of establishing a new satellite library. With prior written Government approval, the Contractor is authorized to lease temporary or permanent facilities for the purpose of establishing these new libraries.

K. Data Dissemination.

(1) The Contractor shall furnish project related data/media to other Government and Government/Contractor facilities or agencies upon approval by the appropriate designated Government representative.

(2) The Contractor shall prepare Material Transmittals to officially forward all required data/media in accordance with the Navy Correspondence Manual procedures (SECNAVINST 5216.5C and COMPMTCINST 5216.3) and local SOP.

(3) The Contractor shall distribute the approved transmittals using the U.S. Federal Postal services of FIRST CLASS, CERTIFIED, REGISTERED, EXPRESS MAIL or other express carriers approved by the government. Express mail transmittals shall be approved by designated government authority prior to distribution.

(4) The Contractor shall, with the approval of the government, transmit classified project or business sensitive data via secure electronic file server or secure facsimile machine.

(5) The Contractor shall provide courier service on a pre-approved schedule, to assist in data dissemination between libraries, other support offices such as the Post Office, Mail Room, other government data centers, etc.

L. Mail Operations.

(1) The Contractor shall on a periodic (e.g., daily) basis receive, sort, and process data received via guard mail, postal delivery and Message Dissemination System.

(2) The Contractor shall receive and sign for packages of data as required. If appropriate, the cognizant Government personnel will be notified when packages have been received and are available for pickup. The Contractor shall retain a copy of all package receipts which require a "signature of receipt."

(3) The Contractor shall control access to areas where mail, data, media, material and equipment are stored.

M. Hours of operation.

(1) The Contractor shall ensure that the library operates, services and access controls are available during hours specified in Task Orders.

(2) The Contractor may not provide data management services outside the normal working hours without prior written or verbal approval of the PCO.

(3) The Contractor shall prepare and submit a Request for Overtime Form for approval/disapproval by government. The Request for Overtime Form shall contain, at a minimum, the name of requester, task order number, employee name, labor category, and justification as to the need for additional hours, date(s) when the work is to be performed, and approving agents signature. The Contractor shall be responsible for ensuring that the Task Order Manager/COR has written or verbal approval from the PCO prior to the Contractor working outside the normal working hours.

N. Travel/mileage.

(1) Mileage is authorized for the courier service, as specified in Task Orders. The courier service shall be on a route specified in Task Orders. The Contractor shall report and submit to the Government all local travel, excluding the courier, on a "Mileage Reimbursement Record" (MRR). The MRR shall contain, as a minimum, name of traveler, date and time of travel, total number of miles traveled, identification of starting and ending geographical points, and total costs to be completed in accordance with the Joint Travel Regulation.

(2) Local mileage is authorized in the coordination of shipping and receiving of data/media.

O. Supplies, material, equipment, and facilities

(1) The Contractor is also authorized, with prior written approval from the PCO, to procure from GSA or other sources such supplies, materials, and equipment that are essential to the delivery of the services rendered to the Government under this contract when they are unavailable from other Government supply sources.

(2) The Contractor is authorized to lease or buy reproduction equipment, binding and shredding machines, temporary facilities, and equipment necessary to maintain operation of current and newly established libraries, if specified in the Task Order. The PCO will provide appropriate approvals prior to the procurement of this equipment/facilities.

(3) The Contractor is responsible for the control and maintenance of all designated Government Furnished Property (GFP) and Equipment. The Contractor shall ensure that all equipment within the library is maintained in good working condition. It is the Contractor's responsibility to notify the Task Order Manager of maintenance requirements for GFP. All GFP and all property acquired by the Contractor in support of this contract shall be returned to the Government upon completion of the contract.

P. Contractor furnished equipment. The Contractor shall provide transportation for the courier service.

Q. Government furnished facilities (GFF)/property (GFP). The government shall provide equipment and property as specified in Task Orders. If not provided for, the

contractor will provide necessary equipment and property to ensure requirements of Task Order are met.

R. Automated systems. The Government shall provide to the Contractor, as appropriate, necessary hardware, software, and processes to ensure compliance with TEAM library operating requirements. Systems such as JEDMICS, JCALS, CMIS, other data tracking systems are examples. Task Orders will define requirements for use of these systems as required.

S. Distribution statements. As appropriate, library data/media shall have distribution statements affixed to them.

3.6 General Task 3.3F TECHNICAL DATA MANAGEMENT AND TECHNICAL DATA PACKAGES

3.6.1 General Task 3.3F-1 Technical Data Management. The Contractor may provide technical data management support in accordance with requirements set forth in task orders. These tasks encompass all aspects of the data management discipline. Contractor courier services shall be limited to local distribution of technical data only. The Contractor shall work within the processes established by the Government and its Prime Weapon Systems contractor to manage the configuration of data. The workflow will encompass four progressive status categories of digital data files.

- Working data, where the data is under the originator's (prime weapon systems contractor) control only
- Released data, where the working data has been approved by the Government in accordance with the prime weapon system contractor's established approval process, has been released for its intended use, and is now subject to prime weapon system contractor configuration control procedures
- Submitted data, where prime weapon system contractor released data has been formally submitted to the Government for approval
- Approved data, where prime weapon system contractor submitted data has been approved for its intended use by the Government

1. Data Identification. As specified by task order, the Contractor shall conduct an analysis of contracts and SOWs to identify and document potential data requirements. The Contractor shall request data requirements from all program participants via data call, compile received data requirements, participate in data requirements reviews, and prepare final data requirements lists. The Contractor shall prepare draft technical data requirements (including CDRLs and DIDs), as specified in the task order.

2. Data Acquisition.

   A. As specified by task order, the Contractor shall review delivered data items for form, content, adherence to schedule, correct distribution, and compliance with the Contract Data Requirements Lists (CDRLs) and Data Item Descriptions (DIDs). The Contractor shall provide analyses and written recommendations, with supporting evidence for the recommendations, regarding Government acceptance of these

deliverables, taking into consideration requirements provided as GFI. The Contractor may be required to accomplish this review and evaluation at the vendor's facility and prepare all documentation in accordance with specifications identified in the task order. The Contractor shall provide technical services necessary to transition master documentation from hardware contractors or other Government activities.

B. The contractor shall participate in actions required to define digital data for delivery to or access by the Government in general, and for configuration management data in particular. With interactive access, the emphasis is on Government access to contractor maintained databases. It is most important to precisely define the requirements for digital data in the Contract Data Requirements List (CDRL).

C. The contractor shall apply configuration management principles to ensure the integrity of digital representations of product information and other data and enhance good data management practice. The concepts are described, as follows, based on elements and principles expressed in **EIA Standard 649**:

- Document identification
- Data status level management
- Data and product configuration relationships
- Data version control & management of review, comment, annotation, & disposition
- Digital data transmittal
- Data access control.

3. Data Tracking. As specified by task order, the Contractor shall receive and record data on both management and engineering documents. The Contractor shall be responsible for the maintenance of the data management tracking system as specified in the task order.

4. Technical Data Maintenance. As specified by task order, the Contractor shall maintain data status changes in configuration and data management systems such as, but not limited to, Configuration and Data Management Support System (CADMSS), Configuration and Data Satellite (CADSAT), AUTOSERD, or SERMIS. The Contractor shall receive, record, and input Government Furnished Information (GFI) documents, verify the data inputs, and return the documents for Government disposition. For existing systems, written operating instructions or desk book procedures may be provided with the task order. The Contractor shall attend working sessions to resolve problems in the areas of maintenance and operation of data management systems.

5. The contractor shall provide support to ensure the Technical Data Competency's ability to provide timely access of accurate data for its customers. This support includes the evaluation and status of current technical data, and assistance in the identification, evaluation and purification of the "master" technical data.

6. The contractor shall assess life cycle logistics, technical, and production data pertinent to weapons systems, subsystems components, and support equipment. Prepare recommendations for incorporation into Management Information Systems which will accommodate on-line access and cross referencing of related information. Recommendations

shall be consistent and compatible with approved NAVAIR/Depot Automatic Data Processing hardware/software applications.

7. The contractor shall provide detailed information that adequately defines the proposed acquisition strategy and establishes a basis for an effective technical data package (TDP) management program.

8. The contractor shall conduct logistics review group audits focused upon the technical data process.

3.6.2 General Task 3.3F-2 Technical Data Package And Other Data Support. The following tasks may be required in accordance with individual task orders:

1. As specified by task order, the Contractor shall be required to prepare a data package to meet the requirements of task order. The Contractor shall review Government furnished technical data and verify completeness, identify missing or incomplete data, and bring drawing standards into compliance with the requirements of the task order. The Contractor shall recommend specifications, performance thresholds, suitable military specifications of components in the Navy supply system, methods of testing, cleaning, inspection, and packaging to meet the specifications of the task order and provide the Government with the rationale for making such recommendations. If deemed necessary by the Government, the associated equipment will be supplied to the Contractor, as GFE, to enable him to complete the task to the requirements specified in the task order. Before acceptance by the Government, the technical data package shall meet the criteria specified by task order.

2. As specified by task order, the Contractor shall review TDPs (furnished as GFI) for technical accuracy, prepare subsequent changes for inclusion to the data package, make recommendations for changes with supporting rationale, and upon approval by the Government, incorporate the changes in the technical data package. The Contractor shall evaluate the changes for their immediate or potential impact upon the data package. Delivered data packages shall comply with the requirements specified by the task order. A task order may require that a specific application software package be used to generate the data (e.g. AutoCAD, ComputerVision CADDS 4X or Theda, Interleaf, or Arbortext). It may require compliance with the Continuous Acquisition and Logistics Support (CALS) initiative, with the data to be delivered in one or more of the following formats: Standard Generalized Mark-up Language (SGML), Initial Graphics Exchange Specification (IGES), Computer Graphics Metafile (CGM), or International Consultative Committee on Telegraphy and Telephony (CCITT-4) and it may require the data to be delivered on tape or CD-ROM medium. The contractor shall also be able to scan existing manually prepared drawings and specification and perform change maintenance utilizing computer aided drafting software. The contractor shall have the capability to deliver the data files as intelligent databases and/or viewing files as specified in the delivery order.

3. As specified by task order, the Contractor shall utilize GFI to prepare various types of technical documentation to support systems and programs. This documentation shall include, but will not be limited to weapon systems user guides, application notes, installation drawings and checkout procedures, technical directives, and technical bulletins. The Contractor shall

ensure that the resulting documentation is accurate and complies with the technical source information. The original source data may not be in the format required for the final product specified by the task order.

4. As specified by task order, the Contractor shall review and provide comments on technical data packages for associated product reproducibility in accordance with task order. The Contractor shall examine the data packages for compliance with part specifications, dimensioning and tolerancing, manufacturing processes, quality assurance procedures (including tests and inspections), proprietary parts or processes, and drawing practices as specified by task order.

5. As specified by task order, the Contractor shall review engineering data packages describing configuration items acquired by the Government. The Contractor shall provide the requisite engineering expertise to review these data packages to determine their acceptability to the Government. This determination of acceptability by the Contractor shall assess the accuracy and adequacy of the data package, its compliance with specified requirements, its suitability for the purpose of the classification specified by the Government, and that it meets the requirements of the specified classification of the task order. The Contractor, as specified by the task order, shall take into consideration the equipment life-cycle cost, mission, contract requirements, and other data provided as GFI in conducting the review. The Contractor shall identify and document any aspects of the data package not meeting Government requirements and shall document the rationale for all determinations made on the issues listed above or as otherwise listed by the task order.

6. As specified by task order, the Contractor shall prepare and deliver a plan with inspection procedures and acceptance criteria for technical data package inspections to meet the applicable provisions of the task order and provide supporting rationale for each inspection and acceptance element.

7. Engineering Drawings and Associated Lists. As specified by task order, the Contractor shall prepare or modify engineering drawings and associated lists to meet the requirements of the task order. The Government will provide, as GFI, change descriptions, drawing originals, models, or rough-draft sketches. Task orders will specify the required format of the drawings. Prior to delivering completed drawing packages, the Contractor shall inspect each new or modified drawing to ensure compliance with task order.

8. Specifications and Standards. As specified by task order, the Contractor shall prepare, modify, or review specifications or standards. As specified by task order, the Contractor shall review top level specifications prepared for weapon system procurements. The Contractor shall analyze the Government's operational requirements for a weapon system and compare the requirements to requirements specified in the task order. Any differences (omissions or inclusions) shall be submitted as a report to the Government. Assumptions and rationale supporting the findings shall be included. The Government will provide, as GFI, change descriptions, drawing originals, models, or rough draft. Delivery orders will specify the required format of the specifications or standards. Prior to delivering completed specifications or standards, the Contractor shall inspect each new or modified specification or standard to ensure compliance with delivery order.

9. The contractor shall provide TDP disclosure classification assessment of data requested under the Freedom of Information Act (FOIA) program.

10. The contractor shall provide curriculum and training in the areas of technical data and related configuration management activities.

11. Provide support to Government configuration audit teams, by verifying and documenting that Configuration Items (CI) and their configuration identification are accurate, complete (according to specified requirements), adequate to establish the product baseline, and compatible with the next higher level design documentation. Discrepancies and recommended corrective actions shall be documented according to procedures established by the audit team and submitted to the Government with the Contractor's justification for recommendations and evaluations. The contractor shall support the configuration verification and audit process which includes but not limited to the following areas:

    - Configuration verification of the initial configuration of a CI, and the incorporation of approved engineering changes, to assure that the CI meets its required performance and documented configuration requirements
    - Configuration audit of configuration verification records and physical product to validate that a development program has achieved its performance requirements and configuration documentation or the system/CI being audited is consistent with the product meeting the requirements.
    - The contractor shall conduct configuration audits and/or inspections to ensure conformance to and/or validation of specifications, drawings and associated lists, product data management information and reference documents which define and/or document the characteristics of the item.

12. Review and evaluate change proposals for impact to drawing packages, specifications, associated technical documentation, product data management information and related program concerns.

13. As specified by task order, the Contractor shall prepare and deliver product items in the form of Configuration Audit Plans, Management Plans, and Site Preparation Requirements & Installation Plans in accordance with; but not limited to, the following general specifications:

    The Configuration Audit Plan details the scope of the planned configuration audit, providing identification of items to be audited, the associated contract requirements, and documentation to be available. It prescribes the planned procedures for accomplishing the audit, and includes proposed location, schedule, and team information.

    A. The scope of the effort required by this specification involves performing all the tasks required to prepare and deliver a fully staffed Configuration Audit Plan to the Customer.

    B. This effort involves the following tasks:

Task 1: Analyzing relevant program documentation (provided by the Government). This will involve the contractor reviewing and analyzing program management, logistics and engineering data. Examples of Government Furnished Information provided to the contractor for this task are Acquisition and Logistics plans, related Milestone schedules, Configuration Management plans, contract requirements relative to Technical Data Packages (TDPs) and Configuration Management, technical manuals (draft and or final), Logistics Support Analysis data, Configuration Item top-down breakdowns, and so forth.

Task 2: Developing a configuration audit strategy. This involves using the analysis of task 1 and formulating an audit strategy tailored to the unique characteristics of the weapon system program. Typical considerations in this area are "..should the audit address all the components of the Configuration Item, or should it address only the most critical, or should the audit be separated into several subsystem audits or approaches, with each conducted separately at vendor (vice prime contractor) facilities.

Task 3: Obtain approval of the Configuration Audit Strategy. This involves coordinating the strategy with the class desk, the APML, the Program Office and the Prime Contractor, incorporating their comments and obtaining approval from the Program Manager. The staffing the strategy will involve, at a minimum, preparing a forwarding letter/memo with the draft strategy attached to each of the organizations, answering their questions as they review the strategy, incorporating and resolving conflicting inputs, finalizing the draft, routing the draft to each organization for concurrence, and obtaining the Program Managers approval of the strategy.

Task 4. Prepare a Draft Configuration Audit Plan. This involves developing the plan in accordance with DI-CMAN-80056A (with paragraph 7.1 citation of MIL-STD-973 paragraph 5.6.1.2 changed to read 5.6, inclusive.) and the applicable parts of EIA Standard IS-649, NAVAIRINST 4130.1, DODI 5000.2, MIL-STD-973 and their successor documents. This plan will define the schedule of events, any program interference impacts and contractor coordination activities and milestones, number and type of personnel, extent of audit depth and breadth, and specific exit pass/fail criteria. Also included within this schedule is specific coverage for any associate contractor Non-Disclosure Agreements and Licensing Agreements for all tiers of involved suppliers and subcontractors.

Specifically the following will be addressed in the plan:

a. Purpose of the Audit
b. Hardware Configuration Items to be audited
c. Product Base-line Content and Benchmark
d. Software Configuration Items to be audited
e. Documentation to be audited (including the internal and external configuration control procedures & status)
f. Reference Material that will be required in addition to the audit documentation

g. Summary of the Contractual requirements against which the audit will be conducted
h. Documentation of the specific audit procedures that will be followed including the pre-audit preparation, the conduct of the audit, the processes for documenting deficiencies, procedures for tracking deficiencies and the process for accepting the contractors response for deficiency corrections.
i. Locations and dates of the audit(s)
j. Audit team Composition (Government and Contractors)
k. Administrative requirements (including security)
l. Special audit control factors for conditions such as modified commercial, non developmental products, other acquisition reform methods, intellectual property, classified products, foreign sources, digital source data, etc.

Task 5: Obtain approval of the Configuration Audit Plan. This will involve coordinating the plan with the class desk, the APML, the Program Office and the Prime Contractor, incorporating their comments and obtaining approval from the Program Manager. This will involve, at a minimum, preparing a forwarding letter/memo with the draft plan attached to each of the organizations, answering their questions as they review the strategy, incorporating and resolving conflicting inputs, finalizing the draft, routing the draft to each organization for concurrence, and obtaining the Program Managers approval of the plan.

Task 6: Deliver the Plan in accordance with the CDRL specified in individual Task Orders.

The Management Plan describes the program scope, lays out the organization (Government and contractor), provides functions, duties, and responsibilities for positions required to staff the organization, defines and documents management procedures, policies and reporting requirements required to manage a major automated information system or technology initiative.

A. The scope of the effort required by this specification involves performing all the tasks required to deliver a fully staffed Program Management Plan to the Customer.

B. This effort involves the following tasks:

Task 1: Analyzing relevant program management documentation (provided by the Government). This will involve the contractor reviewing and analyzing program management, financial management, acquisition management, logistics management and engineering management data. Examples of the type of documents that the government will provide the contractor for this task are:

a. Program Management Documentation (statutory, regulatory and mandatory)
b. Economic Analysis
c. Acquisition Plan
d. Program Schedules
e. Program Management Information Systems

f. Statements Of Works and CDRLs

Task 2: Prepare a Draft Management Plan. This involves developing the plan in accordance with DI-MGMT-80004. This plan shall address the organizational structure, the assignment of functions, duties and responsibilities, the governing procedures and policies and the reporting requirements that are established for the initiation, monitoring, control, completion, test and evaluation and reporting of program activity, tasks, projects and programs. This plan will address:

a. Detailed description of the system(s) to be managed
b. Detailed description and schedule of all the key program activities
c. Detailed description of the required program documentation
d. Organizational Structure
e. Program Management methodology
f. Position Descriptions with functions, duties and responsibilities
g. Key Personnel related to assigned Position Descriptions
h. Security
i. Management Information Systems to be used

Task 3: Obtain approval of the Management Plan. This will involve the contractor coordinating the plan with key personnel referenced in the Management Plan including the Program Office, and the Prime Contractor, incorporating their comments and obtaining approval from the Program Manager. It involves, at a minimum, preparing a forwarding letter/memo with the draft plan attached to each of the organizations, answering their questions as they review the plan, incorporating and resolving conflicting inputs, finalizing the draft, routing the draft to each organization for concurrence, and obtaining the Program Managers approval of the plan.

Task 4: Coordinate and Administratively Support Program Management Reviews. This will involve the contractor planning program reviews and will require the contractor to:

a. conduct the pre-planning,
b. organize the review, arrange for the facilities,
c. prepare the conference material,
d. administratively support the conference,
e. draft, obtain and distribute the minutes,

Task 5: Monitoring Action Item Status: This involves the contractor monitoring and updating the status of active action items. It includes contacting the actionee and obtaining the status of the action that he/she was assigned at the prior Program reviews.

Task 6: Deliver the Management Plan, the Program Review Minutes and the Action Item Status in accordance with the CDRL as specified in individual Task Orders.

The Site Preparation Requirements and Installation Plan defines requirements and responsibilities for the coordinated, integrated Government and system Contractor site preparation and installation efforts of the deliverable end product(s).

A. The scope of the effort required by this specification involves performing all the tasks required to deliver a fully staffed Site Preparation Requirements & Installation Plan to the Customer. It applies to the deployment of a major system to a specific site (land based or sea based).

B. This effort involves the following tasks:

Task 1: Analyzing relevant program documentation (provide by the Government). This will involve the contractor reviewing and analyzing program management, logistics and engineering data. Examples of the type of documents that the government will provide the contractor for this task are:

a. Engineering Design Specification
b. General Equipment Specifications
c. Engineering Drawings
d. Test and Evaluation Requirements
e. System Safety Requirements
f. Human Factors Requirements
g. Reliability and Maintainability Requirements/Test Results
h. Site Specific Planning Data
i. Maintenance Plans
j. Logistics Support Analysis data
k. Vendor (prime contractors and OEMs) operating manuals
l. Government Furnished Equipment requirements and lists
m. Government generated operating manuals
n. Site Specific general policy and constraints

Task 2: Developing a Pre-Site Survey Checklist. This involves using the analysis of task 1 and formulating a checklist of actions that must be performed during the site survey. Example checklist items include location for each physical item, location of power and LAN drop for each physical item, and identification of site points of contact for each checklist action.

Task 3: Develop a Site Survey Plan. This plan will identify the details of the planned site survey, providing identification of the system(s) to be deployed at the site, the associated contract requirements governing the delivery and installation of the system(s), resource requirements, documentation to be available, the procedures for accomplishing the survey, and proposed location, schedule, and team composition.

Task 4: Obtaining Approval of the Site Survey Plan: This will involve coordinating the plan with the Program Office, the site and the Prime Contractor, incorporating their comments and obtaining approval from the Program Manager. Staffing the plan will involve, at a minimum, preparing a forwarding letter/memo with the draft

plan attached to each of the organizations, answering their questions as they review the plan, incorporating and resolving conflicting inputs, finalizing the draft, routing the draft to each organization for concurrence, and obtaining the Program Managers approval of the plan.

Task 5: Conduct the Site Survey: This will involve traveling to the site to be surveyed and surveying the site. The approved site survey plan will govern the site survey. The contractor will provide appropriate subject matter experts for the duration of the site survey.

Task 6: Prepare a Draft Site Preparation Requirements and Installation Plan. This involves developing the plan in accordance with DI-MGMT-80033. This plan will address:

a. Detailed description of the system(s) to be deployed to the site
b. Site layout/placement drawings
c. General Description of the Equipment Specification
d. Lighting Requirements
e. Facility Construction/Modification Requirements
f. Electrical Power Requirements
g. Equipment Inter-unit cabling/wiring
h. Air Conditioning and Cooling requirements
i. Shipping Requirements
j. Environmental Considerations and Needs
k. Detailed description and schedule of all the installation and data loading/conversion work to be done at the site

Task 7: Obtain approval of the Site Preparation Requirements and Installation Plan. This will involve coordinating the plan with the Program Office, the site and the Prime Contractor, incorporating their comments and obtaining approval from the Program Manager. Staffing the plan will involve, at a minimum, preparing a forwarding letter/memo with the draft plan attached to each of the organizations, answering their questions as they review the strategy, incorporating and resolving conflicting inputs, finalizing the draft, routing the draft to each organization for concurrence, and obtaining the Program Managers approval of the plan.

Task 8: Deliver the Plan in accordance with the CDRL specified in individual Task Orders.

3.7 General Task 3.3G MISCELLANEOUS TECHNICAL DATA SYSTEMS SUPPORT. The contractor may be required to provide professional and technical system support services in the form of but not limited to systems administration, system analyses, solution development and implementation, software and networking support to all equipment and technical data systems. This support will be provided 24 hours per day.

3.8 General Task 3.3H STANDARDIZATION, POLICY AND PROCEDURES SUPPORT. Contractor may be required to prepare reports describing progress or other status with regard to services, tasks, and products being performed or developed in support of technical data requirements.

1. Provide engineering technical and data processing support. Provide engineering, analytical and technical support to perform computational and data processing support to identify and integrate the logistics support elements. The contractor shall assist in generating, developing and implementing computer program changes and new data processing techniques, and shall provide continuing support of project computational requirements.

2. Technical Information Storage, Retrieval, Conversion, and Integration - The contractor shall provide analyses and evaluations of the policy, processes, procedures, and tools used to manage, maintain, store, and retrieve technical information in support of weapon systems, airborne weapons, and support equipment for the Naval Air Systems Team.

3. Review the policies, processes, procedures, and tools used to support the technical information needs of the Naval Air Systems Team. Make recommendations for changes/modifications/enhancements that will provide improvement in efficiency and effectiveness of the support providing additional benefits to the user, and/or reductions in the cost of operations. Support update and maintenance of standard operating procedures, policies, and instructions.

4. Review technical documentation specifications, standards, guides, handbooks, and other documents used to support the information needs of the Naval Aviation Systems TEAM. Make recommendations for changes/modifications/enhancements that will provide improvement in efficiency and effectiveness of the support providing additional benefits to the user, and/or reductions in the cost of operations. Support update and maintenance of specifications, standards, guides, handbooks, and other documents.

5. Review existing systems and data architecture for potential integration of training material, logistics data, and technical information and make recommendations for future enhancements/development efforts. Examine systems currently used and determine the potential for integration/development of common databases and data elements (e.g., manuals and other training materials) and technical information (such as technical manuals, engineering drawings, etc.) Review planned and existing logistics systems to determine optimum interface requirements with technical information systems to ensure maximum benefit to the user.

4. CODE 3.0J OPERATIONAL, MANAGERIAL, ANALYSIS, & TECHNICAL SUPPORT REQUIREMENTS.

4.1. General Task 3.0JA . DATA PROTECTION – This effort is to ensure that the Naval Aviation Community properly protects, discriminates and labels data, once it is procured and accepted, in accordance with National Security Policy and Federal Regulations. Services are required to provide subject matter expert guidance, support, and technical direction to programs and/or facilities in such areas of data disclosure, classification, distribution statements, rights in

data, access and integrity. Services are also required to ensure that the data acquired by the government to support Logistics, Fleet Operations, and maintenance function is protected. These services include, but are not limited to, the following tasks.

1. Data Integrity Risk Assessments, Evaluations, Audits, and Testing: The contractor shall provide support for the performance of Data Integrity risk assessments, evaluations, audits, and testing of Navy, DoD, and Government facilities, systems hardware and software. The contractor shall support the Navy, DoD, and Government activities in the identification and evaluation of Data Integrity vulnerabilities of Navy, DoD, and Government facilities, systems hardware, and software. The contractor shall audit, test and evaluate the physical security of Navy, DoD, and Government facilities including those used for secure data processing, signal processing, and communications. The contractor shall utilize data from the performance of risk analyses and assessments to develop, test and implement Government approved Security Risk Management Plans for Navy, DoD, and Government systems. The contractor shall identify, gather, and compile Data Integrity risk data for the development, testing and implementation of Government approved System Security Plans for Navy, DoD, and Government systems.

2. OPSEC, COMSEC, and SIGSEC Program Planning and Development: The contractor shall provide support for Data Integrity implementation in Operations Security (OPSEC), Communications Security (COMSEC), and Signal Security (SIGSEC), and the associated Security Policy for Navy, DoD, and Government facilities, systems, hardware and software. The contractor shall support the development of Navy, DoD, and Government OPSEC, COMSEC and SIGSEC hardware, software, and documentation including policy statements, instructions, directives, and handbooks. The contractor shall review OPSEC, COMSEC and SIGSEC requirements for Navy, DoD, and Government facilities and programs and support the development and preparation of required efforts to protect technical data. The contractor shall help identify Navy, DoD, and Government OPSEC, COMSEC and SIGSEC threats, vulnerabilities and countermeasures. The contractor shall develop and maintain an inventory of security resources including hardware, software, and documentation used on various Navy, DoD, or Government programs. The contractor shall develop and maintain a data base which will be used to assist in planning, budgeting, and tracking the acquisition and implementation of Data Integrity resources for major Navy, DoD, and Government acquisition programs. The contractor shall support the development of an overall Data Integrity Awareness Programs for Navy, DoD, and Government programs. The contractor shall help identify the logistics support and financial requirements for the implementation of Navy, DoD, and Government Data Integrity Awareness policy.

3. Acquisition Systems Data Protection Support: The contractor shall provide support for the implementation of Acquisition Systems Data Protection Support on Navy and DoD programs. The contractor shall develop and submit for approval Acquisition Program Protection Plans (PPPs) for the security of Navy and DoD acquisition program data. The contractor shall gather, assimilate, and analyze the information required for the development of Acquisition Program Protection Plan. The contractor shall help identify Navy and DoD system sensitive technologies and unique system features to counter foreign intelligence services (FIS) collection efforts and unauthorized disclosure of sensitive data/technologies. The contractor shall review Navy and DoD Foreign Military Sales (FMS) programs to help identify and

evaluate technology. The contractor shall identify resources including personnel, equipment, facilities, and funding required in each acquisition phase for providing the level of protection proposed in the Acquisition Program Protection Plan. The contractor shall examine security classification guides, technology assessment and control plans, and delegation and disclosure authority letters to help ensure compliance with Acquisition Program Protection Plans. The contractor shall develop and maintain a database which will be used to assist in planning and tracking the requirements for the development of Acquisition Program Protection Plans and OPSEC Plans for Navy and DoD acquisition programs. The contractor shall perform all logistics and financial analyses necessary for the definition of acquisition program data protection requirements including the development of Acquisition Program Protection Plans and make recommendations based thereon.

4. Automated Information System (AIS) Security Evaluation Support: The contractor shall provide support for the implementation of Automated Information System (AIS) Security evaluation Support for Navy, DoD, and Government AIS, hardware and software. The contractor shall support the Navy, DoD, and Government activities in the evaluation of security vulnerabilities of Navy, DoD, and Government Automated Information Systems including all hardware and software. The contractor shall evaluate the effectiveness and provide recommendations for access control methodologies, hardware, and software for Navy, DoD, and Government Automated Information Systems and network resources protecting corporate data. The contractor shall evaluate the vulnerability and integrity of Navy, DoD, and Government Automated Information Systems, data and networks to software and network viruses and worms. The contractor shall utilize security integrity models to evaluate the vulnerability of Navy, DoD, and Government Automated Information Systems data, networks, and software. The contractor shall evaluate the design structure of Navy, DoD, and Government system software for data integrity and security vulnerabilities using Computer Aided Software Engineering (CASE) technology. The contractor shall develop, evaluate and make recommendations to maintain the adequacy of Navy, DoD, and Government facility Contingency Plans and Disaster Recovery Plans. The contractor shall support the implementation of Computer Security Certification and Accreditation of Navy, DoD, and Government Automated Information Systems (AIS) and Network systems. The contractor shall develop and maintain a database which will be used to identify and track data integrity and security events or incidents that have been logged and identified on Navy, DoD, and Government AIS. The contractor shall support the planning and implementation of information security operations performed by an authorized Computer Emergency Response Team (CERT) on Navy, DoD, and Government AIS assets. The contractor shall evaluate the level of damage caused by information security incidents relating to data integrity incidents and define technical, operational, and financial requirements for the restoration of AIS operations and data and the elimination of identified vulnerabilities.

5. Automated Information System (AIS) Data Integrity Planning Support: The contractor shall provide support for the implementation of AIS Data Integrity Planning Support for Navy, DoD, and Government AIS, hardware, and software. The contractor shall support the development of Navy, DoD, and Government AIS Data Integrity hardware, software, and documentation including policy statements, instructions, directives, and handbooks. The contractor shall define Navy, DoD, and Government Data Integrity vulnerabilities and countermeasures for Automated Information Systems. The contractor shall identify Navy,

DoD, and Government system threats in the area of Information System Data Integrity. The contractor shall support the development of AIS Data Integrity Awareness Programs for Navy, DoD, and Government programs and facilities. The contractor shall define the logistics support and financial requirements for the implementation of AIS Data Integrity policy for Navy, DoD, and Government organizations. The contractor shall identify, gather, and compile the required data for the development and implementation of Navy, DoD, and Government system and facility Contingency Plans and Disaster Recovery Plans. The contractor shall develop and submit for approval required System Data Integrity Plans for Navy, DoD, and Government systems.

6. Data Integrity Curriculum Development and Training: The contractor shall provide support for the development and implementation of Navy, DoD, and Government Data Integrity Training Courses, Media, Interactive Courseware (ICW), and Computer Based Training (CBT). The contractor shall investigate and identify the Manpower and Training (MPT), logistics support, training technology, training media, resource, schedule, and cost requirements for the development and presentation of Data Integrity training courses. The contractor shall support instructional system development for Data Integrity training courses based on conventional presentation media, computer based training, and interactive courseware (ICW). The contractor shall develop required training documentation, training aids, and special media including interactive courseware for Data Integrity training courses. The contractor shall develop training course outlines, training schedules, and training plans for the presentation of training courses. The contractor shall review, evaluate, and provide recommendations for any required modifications to existing Data Integrity training courses. The contractor shall plan, organize, coordinate, and present Data Integrity training courses for Navy, DoD, and Government personnel.

4.2 General Task 3.0JB JEDMICS SITE MANAGEMENT AND OPERATION - The Joint Engineering Data Management Information and Control System (JEDMICS) repository is used to store digitized indexing and image data for retrieval to support user requirements. JEDMICS is fed by a data entry and data integrity front end and used by a data demand-driven back end. JEDMICS consists of multiple servers and databases that require typical AIS services.

1. The contractor shall provide all aspects of repository operations for JEDMICS. The contractor shall provide the labor necessary to operate and maintain Government Repositories containing engineering data, associated data, and other Technical Data, including the maintenance of Government Furnished Equipment (GFE). The data consist of items such as engineering drawings, technical manuals, microfilm, aperture cards, specifications, standards, handbooks, directives and other technical documents. This shall include, but not be limited to, the following tasks:

    A. Exercise responsibility for managing the daily operations.

    B. Exercise responsibility for the daily operations of JEDMICS including, but not limited to, data entry and integrity, system administration, system reporting and data retrieval.

C. Ensure that the system accommodates assigned input data and user demand for output data in an accurate and timely manner.

D. Determine system/subsystem access privileges granted to various user classes and the permissible user activities. Establish and maintain user/device profiles in accordance with the established procedures.

E. Provide planning assistance relative to system technology refreshment, system maintenance, continuity of operations, data protection, consumables, process re-engineering efforts, software licensing and system interface management.

F. Assist in the incorporation of hardware technology refreshment and software upgrades.

G. Coordinate system/equipment maintenance actions and problem report tracking.

H. Provide system information and reports as requested by the Service component management office, JEDMICS Program Management Office, or other designated activity.

I. Develop and maintain system process and procedures for administration of JEDMICS.

J. Provide for the configuration management of the site's system, such as installation of approved system baseline changes and execution of site specific changes, including related facility/network/security services.

K. Provide system overview or introductory familiarization (i.e., users of the repository services) as required.

2. REQUIREMENTS. The contractor shall perform functions to enable efficient and customer-responsive operations at the site. These functions are described in five groups, which are not mutually exclusive:

A. Configuration Services. Configuration services are concerned with assuring that JEDMICS (1) is operating under an approved baseline, including any site specific approved changes, (2) is operating under the protection of the mechanisms required to maintain system security and site security accreditation; (3) data is appropriately protected from unauthorized disclosure and contamination and is appropriately protected during transmission over the network, (4) equipment maintenance agreements and licensing are in place, (5) technology refreshment of hardware and software COTS has been adequately planned, (6) interfaces to other site applications and systems are being adequately managed, (7) consumables are available to meet business needs, (8) operations support workforce is appropriate to meet work projections and is adequately trained, (9) process plans and procedures are in place for all support operations, (10) assistance is provided to support process re-engineering efforts, and (11) assistance is provided for accreditation..

B. Operations support is concerned with performing those functions related to the operation including: data receipt, data entry, data integrity validation, reporting and customer support. Each aspect of the system operations support to be provided should be covered by a process plan or procedure. These tasks shall include, but not be limited to, the following:

(1). The contractor shall receive documents, store and maintain incoming drawings and associated data to Government repository and make appropriate entries in the Locator files.

(2). The contractor shall provide customer service to include retrieving and preparing drawing packages and associated lists within established limits for reproduction and distribution to authorized personnel.

(3). Distribution task shall include packaging, labeling and mailing. This will include shipping single or multiple documents to single or multiple locations within or outside the Government.

(4). The contractor shall locate drawings in micro-form or hard copy for scanning/reproduction, conduct inventory of drawings in the Government repositories and make corrections to the data base locator files.

C. System administration encompasses a wide range of functions to assure the optimum availability for user inquiries and other automated processes. These functions include knowledge of operating system and application software status, including known bugs, Temporary Engineering Change Proposals and their scope. System administration will include, but not be limited to: (1) performing index data and image migration functions; (2) performing data import/export functions; (3) performing file/table maintenance; (4) creating custom reports; (5) managing data volumes, (6) performing data entry, conversion and quality assurance functions, (7) generating routine reports, (8) performing security functions, (9) supporting multi-site process agreements such as for continuity of operations and database synchronization, and (10) starting and shutting down all or portions of the system. The systems Administrator must maintain configuration control over all operating system and application software products, ensuring compatibility with Interfacing software and working with the designated government officials to remain current on all lessee and licensing agreements.

(1) A primary role of the system administrator is to ensure the system and its data are available to the users. This includes working with government and contractor personnel on the scheduling of preventative hardware maintenance to minimize disruption to customer support, and accomplishing remedial hardware maintenance to return the system to being fully mission capable in the shortest time. The following will be performed:

a) The system Administrator will insure backups are performed in a consistent and thorough manner to assure reliable return to operational status in the event of a system crash. The systems Administrator will

also draft an executable Continuity of Operations Plan for dealing with the recommended means of reconstituting JEDMICS capabilities after various types of disasters.

b) The system Administrator will assist in developing personnel specific training plans, preparing In-house training material where feasible, otherwise recommending commercial sources where necessary. He will also develop qualification guides to determine when personnel are qualified to perform selected tasks unsupervised, and standard operating procedures that will assist personnel in performing critical tasks without missing steps.

c) Coordinating with the government to make sure only trained personnel are authorized to perform functions such as key changes, mass index updates, or other projects affecting the database structure or the synchronization with other databases. It also involves working with security personnel to assure the system is protected from intrusions, that suspicious activity is reported, and security gaps closed. A component of this area is to make sure system passwords are changed on a regular schedule and when personnel changes or possible password compromise have occurred.

(2) The System administrator will perform an Automation Integration function including making sure JEDMICS functions in its required role, and interfaces with the necessary systems. This responsibility involves providing technical consulting to the government on potential impact of hardware and software projects.

(3) All functions exercised by the System Administrator require close coordination with numerous government and contractor organizations and personnel. To the maximum extent practical, business processes and decision-making authorities will be documented in memorandums or Standard Operating Procedures, which the System Administrator can assist in drafting and help in the coordination process with the stakeholders.

(4) System problem management involves response to reported problems in operating JEDMICS, requests for information or technical assistance relative to performing a function, request for equipment repair; monitoring of systems operation, and site management of reported system wide problems (System Problem Reports (SPRs)). Reported problems may be at the system, subsystem and device level or relative to a software tool, database, or application.

(5) Implementation of approved changes shall include supporting documentation and an analysis of the impact on existing business processes and procedures.

4.3 General Task 3.0JC CMIS SITE MANAGEMENT AND OPERATION - The Configuration Management Information System (CMIS) is used to help DoD manage and the configuration of its weapon systems and other high value assets. CMIS requires typical AIS services.

1. The contractor shall provide all aspects of the management and repository operations for CMIS and other Configuration Management Systems. The contractor shall provide the labor necessary to operate and maintain Government Systems containing configuration data, including the maintenance of Government Furnished Equipment (GFE). This shall include, but not be limited to, the following tasks:

    A. Exercise responsibility for managing the daily operations of CMIS.

    B. Exercise responsibility for the daily operations including, but not limited to, data entry and integrity, system administration, system reporting and data retrieval.

    C. Ensure that the system accommodates assigned input data and user demand for output data in an accurate and timely manner.

    D. Determine system/subsystem access privileges granted to various user classes and the permissible user activities. Establish and maintain user/device profiles in accordance with the established procedures.

        (1) Provide planning assistance relative to system technology refreshment, system maintenance, continuity of operations, data protection, process re-engineering efforts, software licensing and system interface management.

        (2) Assist in the incorporation of hardware technology refreshment and software upgrades.

        (3) Coordinate system/equipment maintenance actions and problem report tracking.

        (4) Provide system information and reports as requested by the Program Management Office, or other designated activity.

        (5) Develop and maintain system process and procedures for administration of CMIS.

        (6) Provide for the configuration management of the site's CMIS system, such as installation of approved system baseline changes and execution of site specific changes, including related facility/network/security services.

        (7) Provide system overview/introductory familiarization as required.

        (8) Provide technical support services to populate CMIS/IDE with data relative to ECP processing and management. Provide validation to ensure the completeness and accuracy of the data as it is entered.

(9) Provide technical support in the evaluation, design, development, testing and documentation of application enhancements for users with access to modification management tools. Provide recommendations in support of business process improvements and system migration to CMIS, the DoD's CM system of choice. Provide technical support services to populate MODMIS/IWSDB with data relative to ECP processing and management. Provide validation to ensure the completeness and accuracy of the data as it is entered.

(10) The contractor shall review, evaluate, update and/or maintain automated management information systems used for tracking, controlling and analyzing actions, status and progress, and maintaining configuration baselines, status accounting and document control.

2. REQUIREMENTS. The contractor shall perform functions to enable efficient and customer-responsive operations at the site. These functions are described in five groups, which are not mutually exclusive:

A. Configuration services are concerned with assuring that CMIS (1) is operating under an approved baseline, including any site specific approved changes, (2) is operating under the protection of the mechanisms required to maintain system security and site security accreditation; (3) data is appropriately protected from unauthorized disclosure and contamination and is appropriately protected during transmission over the network, (4) equipment maintenance agreements and licensing are in place, (5) technology refreshment of hardware and software COTS has been adequately planned, (6) interfaces to other site applications and systems are being adequately managed, (7) operations support workforce is appropriate to meet work projections and is adequately trained, (8) process plans and procedures are in place for all support operations, (9) assistance is provided to support process re-engineering efforts, and (10) assistance is provided for accreditation..

B. Operations support is concerned with performing those functions related to the operation of CMIS including: data receipt, data entry, data integrity validation, reporting and customer support. Each aspect of the system operations support to be provided should be covered by a process plan or procedure.

C. System administration encompasses a wide range of functions to assure the optimum availability for user inquiries and other automated processes. These functions include knowledge of operating system and application software status, including known bugs, Temporary Engineering Change Proposals and their scope. System administration will include, but not be limited to: (1) performing data import/export functions; (2) performing conversion and quality assurance functions, (3) performing file/table maintenance; (4) creating custom reports; (5) managing data volumes; (6) starting and shutting down all or portions of the system; (7) generating routine reports; (8) performing security functions, (9) supporting multi-site process agreements such as for continuity of operations and database synchronization. The systems Administrator must maintain configuration control over all operating system and application software products, ensuring compatibility with Interfacing software and working with the

designated government officials to remain current on all lessee and licensing agreements.

(1) A primary role of the system administrator is to ensure the system and its data are available to the users. System availability includes working with government and contractor personnel on scheduling preventative hardware maintenance to minimize disruption to customer support, and the accomplishment of remedial hardware maintenance to return the system to being fully mission capable in the shortest time. The following will be performed:

(2) The system Administrator will insure backups are performed in a consistent and thorough manner to assure reliable return to operational status in the event of a system crash. The systems Administrator will also draft an executable Continuity of Operations Plan for dealing with the recommended means of reconstituting CMIS capabilities after various types of disasters.

(3) The system Administrator will assist the in developing personnel specific training plans, preparing In-house training material where feasible, otherwise recommending commercial sources where necessary. He will also develop qualification guides to determine when personnel are qualified to perform selected tasks unsupervised, and standard operating procedures that will assist personnel in performing critical tasks without missing steps.

(4) Coordinating with the government to make sure only trained personnel are authorized to perform functions such as key changes, mass index updates, or other projects affecting the database structure or the synchronization with other databases. It also involves working with security personnel to assure the system is protected from intrusions, that suspicious activity is reported, and security gaps closed. A component of this area is to make sure system passwords are changed on a regular schedule and when personnel changes or possible password compromise have occurred.

(5) The System administrator will perform an Automation Integration function including making sure CMIS functions in its required role, and interfaces with the necessary systems. This responsibility involves providing technical consulting to the government on potential impact of hardware and software projects.

(6) All functions exercised by the System Administrator require close coordination with numerous government and contractor organizations and personnel. To the maximum extent practical, business processes and decision-making authorities will be documented in memorandums or Standard Operating Procedures, which the System Administrator can assist in drafting and help in the coordination process with the stakeholders.

(7) System problem management involves response to reported problems in operating CMIS, requests for information or technical assistance relative to performing a function, request for equipment repair; monitoring of systems operation, and site management of reported system wide problems (Systems Problem Reports (SPRs)). Reported problems may be at the system, subsystem and device level or relative to a software tool, database, or application.

(8) Implementation of approved changes shall include supporting documentation and an analysis of the impact on existing business processes and procedures.

4.4 General Task 3.0.JD JOINT LOGISTICS PRODUCTS AND PROCESSES – GENERAL SUPPORT. AIR 3.0J is charged to plan and direct the transition of Defense technical data management from the migratory stove pipe systems to a fully-interoperable, open, logistics integrated data environment (IDE). This effort will require research and preparation of required system acquisition and management documentation, along with associated briefing materials, point papers and reports. The Contractor shall provide analyses of existing business processes and development of schema to evolve these processes to the digital environment; develop case study reports; maintain management action reporting records and prepare point papers, concept papers, and analyses of technical topics related to Navy and DoD Technical Data Management. The Contractor shall develop and maintain acquisition strategy documents including a strategic planning schedule. The contractor shall also support the Joint Technical Data Integration (JTDI) program management team in managing the JTDI Projects. This includes, but it not limited to, the design, development, testing, fielding and support, both domestically and internationally, of such information technology systems as JEDMICS, CMIS, and CAD II. This will involve Acquisition Planning, Acquisition Program Base-lining, Program Protection and System Security, Budget justification backup and execution including spend plan development and tracking, Contract Planning, Systems Engineering, Risk Management and Analysis, Integrated Logistics Support, Integrated Product and Process Development and Configuration Management. The contractor shall also prepare required Memorandums of Agreements /Understandings; assist in conducting Acquisition Reviews; assist in the development of backup data for Planning, Programming & Budgeting; provide C4I support; plan and assist in the implementation of Quality Assurance Programs; develop Information Requirements for Milestone Reviews; conduct Analysis of Alternatives; perform Cost Analysis; provide Threat Assessments; plan and assist in the development and implementation of Test & Evaluation Plans; and provide Program Management Assistance in the oversight and integration of other JTDI contracting efforts and related field activity taskings. The contractor shall perform, but is not limited to the following tasks:

1. Engineering assessments, technical assistance, and evaluation. The contractor shall provide but not limited to the following: participating and assisting in PMO In Process Reviews (IPRs), PMO Transition Meetings, PMO/Service/Agency Business Program Reviews (BPRs), and other JTDI Projects implementation meetings. The contractor will prepare pre- and post-meeting documentation on issues of concern related to these meetings. For BPRs, the contractor will collect required data from each site and the contractors to prepare briefing slides and status on BPR action items, site planning issues, and recording of issues relative to fielding and upgrading of the projects.

2. Site Status Tracking and Reporting. The contractor will maintain a system for collecting, tracking, and reporting the status of essential information such as, site points of contact, loading performance metrics and usage data, site install tracking, issues, events, and other information as necessary. Reports shall be developed and provided on a recurring basis for briefing and status display purposes. The contractor will also assist in the preparation of a PM notebook containing current operational information, issues, and configuration for each operational site.

3. Program/Project Update Reports. The contractor shall develop, prepare, and distribute a Program/Project Update report containing; program information, articles citing business process improvements, planned system enhancements and software updates, meeting schedules, and other articles of interest.

4. Site Upgrade and Transition Planning. The contractor shall assist the PMO in the preparation of site upgrade and transition planning.

5. Program/Project Meetings. The contractor shall organize, prepare for and assist in the administration of Program/Project Meetings to include: site search, facility arrangements, conference planning letters, advance meeting support, conference agenda and documentation preparation, computer support, registration, audiovisuals, photocopying, and preparation of conference minutes and action items.

6. Training Analysis and Audits. The following tasks provide training support to assess, update, and implement user and operator training for future software enhancements and releases. Specifically, the contractor shall:

    A. Prepare training reports as directed by the PMO.

    B. Monitor the status of ongoing training programs and new training being developed.

    C. Support implementation of new software release training.

    D. Review and analyze contractor's training program documentation.

    E. Assist with the distribution of site training documentation.

7. Configuration Management Support. The contractor shall provide management and technical assistance in areas directly supporting JTDI Projects Configuration Management (CM). The contractor shall provide administrative and technical assistance for the Project CM Technical Review Board and other support.

8. Service Requirements and Integrated Product Team (IPT) Meetings. The contractor will provide technical support for Service Requirements and IPT meetings/reviews, record technical notes, and distribute minutes and action items.

9. Implementation Graphics. The contractor will acquire, display, and maintain charts and other graphics, as required, for the PMO Management Information Center (MIC) and provide briefing presentation graphics as necessary.

10. Software Release Support. The contractor shall support the planning, designing, developing, testing, fielding and supporting the JTDI information technology products. This effort will ensure that each of these product areas are compliant with approved DoD architectures, guidelines and standards and will serve to further the DoD goal of achieving an integrated and interoperable DII. The efforts will include but not be limited to the following:

A. Plan. The contractor shall assist in the efforts to specify the content of each release, define responsibilities, estimate costs, provide schedules and define requirements for development, test and installation products.

B. Monitor. The contractor shall attend program review meetings, as required, to assess the progress of Releases. The contractor shall also review Release deliverables to assure Conformance with Release Plan requirements.

C. Software Problem Reporting System Maintenance. The JEDMICS program has developed a JEDMICS Requirements Tracking System (JRTS), the contractor shall use this system [or a more cost-effective system] as a means for documenting, tracking, and managing Software Problem Reports. The contractor shall assist the Program Manager in insuring that problems entered into the system are being evaluated and processed in accordance with the JTDI Software Problem Reporting System requirements. The contractor shall query users and Prime Contractor Level II analysts for SPR data necessary for government Engineers to review, analyze, prioritize, schedule and resolve problems. The contractor shall assist the PM in evaluating proposed updates to the JRTS System and conducting BETA Testing of approved updates. The contractor shall report periodically on SPR status to include a summary of the phase and status of all outstanding SPR's; a current copy of the complete SPR database; and the result of any requirements analysis or BETA testing performed under this task.

11. ConductY2K System Certification: The contractor shall assist in Y2K renovation and residual efforts. This shall involve the following:

A. Updating Y2K Certification Readiness for Renovation Impact

B. Update the Y2K Certification Test Procedures to include baseline test results and all changes made during the conduct of the test and for subsequent regression testing of the AIR 3.0.J Projects and Program software.

C. Updating Plans for and conduct residual Y2K Interface Testing.

D. Conduct Problem Resolution and Regression Testing. This test will be performed after the renovation of the code and will ensure that problems noted during Y2K Certification have been resolved and that functionality has not changed as a result of the renovation.

E. Plan for and conduct Y2K Renovation Contingency Testing. Report results and conduct Regression Testing. Plan for and Prioritize non-Y2K Problem Resolution Efforts, review and allocate TECPs/ECPs and assist in the planning and conduct of the test.

F. Plan for, Prepare and Conduct Transparency Testing with security solution hardware installed.

G. Plan for and Conduct C2 Certification Testing.

12. Providing engineering assessments and evaluations of the prime contractor's current software products, procedures and simulation efforts. The contractor shall provide assessments that include QA parameters, software analysis and trouble report metric analysis.

13. Assist with preparation of technical packages for and planning for software review meetings and planning conferences.

14. The contractor shall provide Program Support and Technical Analysis and provide recommendations on the strategic plans of the JDTI program and other programs that interface with it; analyze the strategies of weapon system programs for potential ventures with JTDI; and attend senior level conferences relative to the mission and strategies of the JTDI PMO. This shall also include conference support. The contractor shall participate in and support Users' Conferences, providing technical and administrative assistance as required.

15. The Contractor shall provide Information Technology (IT) Support Services to the JDTI Program Management Office (PMO). This effort shall consist of technical analyses and report preparation for the Program Office and direct support to DoD Acquisition Managers and the field. This effort also includes site coordination visits for the purpose of improving the flow of information between PMO and sites and among sites

4.4.1 General Task 3.0.JD-1 Design, Development, Testing, and Fielding Support. The contractor shall support the design, development, testing fielding and support, both domestically and internationally, the JTDI Projects. This will involve but not be limited to:

1. Provide technical support in the integration of JTDI projects. Develop migration strategies to move existing system(s) to the end state JTDI environment.

2. Provide systems analysis and technical support in the evaluation, design, development, testing and documentation of application enhancements for users with access to JTDI tools. Provide recommendations in support of business process improvements and system enhancements for the JTDI Tool set.

3. Assessing Hardware and Software (COTS and GOTS) for application and integration into IDE solutions that support the overall JTDI strategy.

4. Review and evaluate existing design, functional, interface and product specifications for integration of JTDI Project's, system, subsystems, equipment, and associated software and provide recommendations for the update of these specifications.

5. Identify support data necessary in JTDI projects, including CMIS, for assessment of the operational readiness, configuration status accounting, reliability and maintainability, and parts life tracking, in support of ECP incorporation into a weapon system, subsystem or support system.

6. Develop and apply test procedures and provide data that demonstrates that the design and development of JTDI Projects are complete, design risks are minimized, and the systems will meet government specifications. The contractor shall report findings, impacts and recommendations.

7. Technically assessing the supplier's software, hardware and data deliveries to assure proper integration with program requirements and schedules.

8. Identifying design deficiencies related to JTDI Projects, systems, subsystems, and equipment and recommending engineering change proposals.

9. Provide technical support in the evaluation, design, development, testing and documentation of application enhancements for users with access to modification management tools. Monitor accuracy and completeness of Modification Program Implementation Management (MOD PIMS) or other ECP tracking systems and provide recommended updates/improvements to existing and planned systems.

10. Monitor the accuracy and effectiveness of existing tools used to support our deployed weapon systems. Provide recommendations for business process improvements and ways to migrate to CMIS and the other JTDI tools faster and more effectively.

11. Performing computer language programming and conducting analysis during Software Quality Assurance and IV&V support efforts.

12. Conducting Software Release Performance Analysis that includes cost and schedule performance and metrics designed to enable estimation of future software releases. The analysis shall also include the impact of COTS on developmental cost and schedule. The analysis shall also include the quantification of requirements "creep".

13. Providing management and technical services for JEDMICS Requirements Tracking System (JRTS) [or substitute] support. This will include maintaining and updating the JRTS Web site by providing:

    A. Home Page maintenance, modifications, including file conversion to HTML;

    B. Upload of files to JRTS server, modification of files as required for HTML formatting and creation of hyperlinks from Home Page to file.

C. JRTS Web Site directory structure and file maintenance;

D. File loading, periodic update, and file purging;

E. File content analysis and summarization to accompany file upload; and

F. Evaluation of PMO Requirements for system expansion or modification for submission to JRTS System Administrator.

14. Providing evaluations of the JRTS [or substitute] and making recommendations for enhancements to or substitution to the JRTS; Preparing file loading reports; and site usage reports as required; and Participating in scheduled JRTS Technical/Management meetings and preparation of minutes as required.

15. Providing engineering and independent validation and verification support on a variety of technical issues related the JTDI. This will include providing technical support and input regarding related programs to include JEDMICS, CMIS, CAD II, KAMNET, and the JEDMICS PDM/CM efforts. Also this will include participating in overall architecture and security design and implementation efforts relative to these programs and overall CM/DM integration.

4.4.2 General Task 3.0.JD-2 Business & Financial Management. The contractor shall design and update the design of the JTDI financial management and control system. This will involve analyzing and converting the fiscal year requirements into work breakdown structure utilizing COTS data base programs such as Excel, Access and/or MS Project. The analysis of the requirements will involve the resources required for the prime contractors, the technical support contractors, the government headquarters staff and the government field activities. Also the contractor will design and update the design of the reporting forms for presenting the financial status of the program. The contractor shall also provide Cost/Schedule Status Report(C/SSR) Analysis. The contractor shall monitor prime contractor baseline development and changes for Software releases, including: attendance at management meetings for C/SSR purposes, maintaining data in Performance Analyzer to assist the Program Office in evaluating contractor performance and performing cost analysis, and preparation of analysis reports relative to C/SSR Reports submitted by the prime contractor. This includes provision of graphs showing actual technical progress vs. the reported cost and schedule performance baseline.

1. Contract-Level and Task Order (TO) Management of JTDI and related projects . The contractor shall provide the technical and functional activities at the Contract/Task Order level needed for the management of JTDI and related projects. The contractor shall include productivity and management methods such as Quality Assurance, Configuration Management, Work Breakdown Structuring, and Human Engineering at the contract/task order level. Also, the contractor shall provide the central administration, clerical, documentation, and related functions. For all JTDI and related projects, the contractor shall prepare a TO Management Plan. The Plan shall describe the technical approach, and organizational resources and management controls to be employed by the JTDI project designer, developer, integrator, etc, to meet the cost, performance, and schedule requirements throughout the total number of TOs executed by the JTDI project officer . Additionally the

contractor shall provide periodic status reports monitoring the quality assurance, configuration management, and security management applied to the various JTDI and related project TOs.

2. Economic Analysis and Life Cycle Cost. The contractor shall provide support in the areas of economic analysis and life cycle cost for the JTDI project efforts. Included will be trade studies and site surveys for Functional Economic Analysis (FEA), Life Cycle Cost Estimating (LCC), Economic Analysis (EA), Business Case Analysis (BCA), Net Present Value (NPV), Payback Period, Rate of Return and Benefits Verification (BV). The contractor shall also track, analyze and make management recommendations on JTDI contractor cost performance. In addition the contractor will assess JTDI and related value-engineering proposals and provide back up and support for budget issues and POM initiative preparation and justification.

4.4.3 General Task 3.0.JD-3 Business Process/Weapon Systems Integration. The contractor shall conduct analysis and research of weapons system programs and other programs to identify and plan the integration of JTDI Projects and other digital technology into individual programs and DoD business processes. This includes but not limited to:

1. The contractor shall identify specific business processes, used on individual weapon systems or programs, such as engineering changes, manufacturing, re-procurement, etc., as candidates for reengineering. The contractor will then selectively model steps in the processes and analyze the opportunities for the insertion of digital technology into a specific weapon systems business processes. As part of this analysis the contractor shall conduct costs benefit analysis and develop plans for the insertion of digital technology into the business processes and program planing documentation.

2. The Contractor shall provide technical analyses of value engineering proposals, cost-benefit analysis of proposed business process improvements and management report preparation. The Contractor shall perform technical and cost-benefit evaluations of information technology-related projects that enhance support of Defense business processes. This effort also includes participating in IPT meetings and site coordination visits for the purpose of improving the flow of information among sites.

3. The contractor shall provide technical analysis and management support by creating an ADCS strategy to convert data to usable digital data and store it in DoD's corporate repositories. This will also include top down breakdown indexing. It will look at past, present and future data conversion requirements and make recommendations for the most cost effective and user friendly approach.

4. The contractor shall analyze existing technical data contract requirements and identify potential opportunities for the modification of the requirements into more cost effective digital data delivery requirements. Also the contractor shall identify opportunities in programs that have not yet structured the contractual requirements for data delivery and develop plans for the insertion of digital data contract requirements.

~~4.5. General Task 3.3/3.0JE SECURITY REQUIREMENTS. The contractor shall comply with security regulations and requirements for tasks requiring the handling, storage, development, update or conversion of confidential or secret material.~~

~~1. Contractor's personnel shall hold a SECRET level security clearance in accordance with the NISPOM, DOD 5220.22-M. The Contractor shall perform in accordance with the Contract Security Classification Specification (DD-Form 254), OPNAVINST 5510.lH, and all other specific security classification guidelines.~~

4.5. General Task 3.3/3.0JE SECURITY REQUIREMENTS. The contractor shall comply with security regulations and requirements for tasks requiring the handling, storage, development, update or conversion of confidential material.

1. Contractor's personnel shall hold a CONFIDENTIAL level security clearance in accordance with the NISPOM, DOD 5220.22-M. The Contractor shall perform in accordance with the Contract Security Classification Specification (DD-Form 254), OPNAVINST 5510.lH, and all other specific security classification guidelines.

2. The Contractor is subject to periodic security inspections to verify compliance with OPNAVINST 5510.lH and other security regulations. This inspection is under the cognizance of the Defense Security Service (DSS). DSS will provide the government with a written assessment of the Contractor employees' knowledge and implementation of all applicable security regulations and guidelines in compliance with the most current issues.

3. The Contractor shall have a Facilities Security Officer (FSO) to ensure security procedures and regulations are followed. The FSO shall have a working knowledge of applicable regulations and resolve security issues that may not be entirely covered by local SOPs, regulations or instructions.

4. The Contractor shall train all employees in Information Security, Security Administration, and employee National Security responsibilities in accordance with the NISPOM DOD 5220.22-M. The Contractor shall provide security procedures and a daily check list to ensure the physical security Integrity of the library complies with security requirements.

5. The contractor is required to provide Operation Security (OPSEC) protection for all classified information (as defined in FAR 4.401) and sensitive information (as defined by Section 3(d)(4), Public Law 100-235 (101 STAT 1727). Security policy, procedures, and requirements for classified information are provided in DOD Manual 5220.22-M, (National Industrial Security Program Operating Manual). Use OPNAVINST 3432.1 and National Security Decision Directive (NSDD) 298 for the concept of Operations Security, and apply the framework for telecommunications security in DFARS clause 252.239-7016. In order to meet this requirement, the Contractor shall develop, implement, and maintain a facility level OPSEC program to protect classified and sensitive information to be held, provided, used, handled, discussed, stored, transmitted, or delivered at a contractor's or subcontractor's facilities during performance of this contract. The Contractor's OPSEC program is to be described in a facility level OPSEC planning document. The Contractor will submit the

document to the Government for approval. The Contractor is responsible for subcontractor implementation of OPSEC requirements for this contract.

4.6 General Task 3.3/3.0JF OTHER REQUIREMENTS.

1. When a contractor furnished facility is used, the contractor shall provide the government prompt access to data when called for by the government.

2. The contractor shall ensure disposal of hazardous materials used in the accomplishment of the above tasks and follow command policies regarding recycling of specific items.

3. The contractor shall furnish progress reports and statistical data in mutually agreeable format as required by task orders.

4.7 General Task 3.3/3.0JG Emerging Technology Advisory Board

1. The contractor shall establish an Emerging Technology Advisory Board that shall consist of a staff of key individuals (both prime contractor and subcontractor personnel) supporting the functional areas described in this Statement of Work (SOW). The contractor shall furnish a Charter describing the amount of "High Tech" advisors; in addition to the Program Manager, determined necessary to support the twelve high level functional requirement areas contained in this SOW. The primary purpose of this Board is to monitor the ever changing and evolving commercial technologies that have either direct or indirect impact on the execution of the various tasks and or supply of items required in this Statement of Work. During the life of this contract, the Board will be required to meet with Government Senior Managers at a minimum every six months or on a periodic basis mutually agreed upon between the Contractor and Government to address emerging technology issues and other related matters as deemed appropriate. Each board member or members will be required to provide a presentation of the technology initiatives that their companies are pursuing, their assessment of new/emerging technologies, and the associated impact on the Government/Industry business processes. At no additional cost to the Government, the contractor shall conduct vendor competitions among the various industry representatives using solicitations to obtain products and services at a lower, more cost-effective means and/or to gain better quality in products and services by using upgraded and/or advancing technologies customary to commercial industry. The Board will be required to maintain and publish minutes of the proceedings with recommendations at the conclusion of the meeting.

Attachment A
Technical Manual Types

The Naval Aviation Systems TEAM inventory of technical manuals includes, but is not limited to, the following types of technical manuals:

GENERAL MANUALS. These manuals include information of interest to a major portion of the aviation community. Contained therein are technical manual indexes, Standard Aircraft

Characteristics Manuals, Deputy Chief of Operations (DCNO) (AIR) training literature, and other miscellaneous technical publications.

OPERATIONAL MANUALS. Publications and other forms of documentation which contain a description of weapon systems with instructions for their effective use.

a. NATOPS Flight Manuals.
b. Pilots Pocket Checklists/Flight Crew Checklists
c. Functional Check Flight Checklists
d. Tactical Manuals.
e. Airborne Weapons/Store Loading (Conventional and Nuclear) Manuals
f. Weapons Loading Checklists
g. Nuclear Weapons Cargo Loading Manuals
h. Cargo Loading Manuals

MAINTENANCE MANUALS. These manuals contain instructions for the effective use and support of weapon systems or equipment. Instructions covering troubleshooting, fault detection, installation, removal, repair and illustrated parts breakdown are provided.

a. General Series Manuals
b. Maintenance Instruction Manuals (MIM's)
c. Wiring Manuals
d. General Aircraft Information Manual
e. Work Unit Code Manuals
f. Weight and Balance Data Manuals
g. Crew Station/In-Flight Maintenance Manuals
i. Airborne Missiles, Guided Weapons, and Target, and Drone Manuals
j. Airborne Missile Weapons Assembly Manuals and Checklists
k. Structural Repair Manuals
l. Illustrated Parts Breakdown (IPB) Manuals
m. Power Plant Manuals
n. Cross Servicing Schedules/Guides
o. Technical Documentation List
p. Planned Maintenance System (PMS) Documentation
q. Turnaround Checklists.
r. Maintenance Requirement
s. Phase Maintenance Requirement Cards.
t. Periodic Maintenance Information Cards (PMIC)

AERONAUTICAL COMPONENT AND EQUIPMENT MANUALS, GENERAL. They cover all types aircraft accessories and related equipment. Some of the most common are accessory, instrument, armament/ordnance, electronic/avionics, tool, test equipment, and support equipment such as test and shop equipment and ground handling equipment.

a. Component and Equipment Manuals, General
b. Miscellaneous Maintenance Checklist/Cards.
b. Challenge Reply Checklists.
c. Preoperational Checklists

SPECIAL APPLICATION TECHNICAL MANUAL SERIES.

a. Aircraft Hardware and Rubber Materials
b. Airfield Lighting Manuals
c. Instructional Equipment and Training
d. Photographic Manuals
e. Aviation Life Support System (ALSS) Manuals
f. Standard Preservation and Packaging Information
g. Chemical Equipment Manuals
h. Meteorology Manuals
i. Ships Installation Manuals
j. Air Traffic Control Manuals
k. Aircraft Battle Damage Repair (ABDR) Manuals

MIL-HDBK-1221 DEPARTMENT OF DEFENSE HANDBOOK FOR EVALUATION OF COMMERCIAL OFF-THE-SHELF (COTS) MANUALS	28 AUG 95	NOTICE 1/30 SEP 99	
MIL-STD-1840C AUTOMATED INTERCHANGE OF TECHNICAL INFORMATION	26 JUN 97		
MIL-PRF-5096F MANUALS, TECHNICAL - INSPECTION AND MAINTENANCE REQUIREMENTS; ACCEPTANCE AND FUNCTIONAL CHECK FLIGHT PROCEDURES AND CHECKLISTS; INSPECTION WORK CARDS; AND CHECKLISTS; PREPARATION OF	01 MAR 96		
MIL-PRF-5288H MANUALS, TECHNICAL AND CHECKLISTS - PREPARATION OF CARGO AIRCRAFT LOADING AND OFFLOADING	01 MAR 96		
MIL-L-7976C(AS) TECHNICAL MANUAL DATA; FOR CONTRACTOR FURNISHED EQUIPMENT AND ACCESSORIES	23 FEB 81	SD 89-1/05 APR 89 NOTICE 1/11 JUN 97#	#INACTIVE FOR NEW DESIGN. N LONGER USED EXCEPT FOR REPLACEMENT PURPOSES
MIL-DTL-15014(AS) MANUALS, TECHNICAL: SEPARATE ILLUSTRATED PARTS BREAKDOWN; TECHNICAL CONTENT REQUIREMENTS (WORK PACKAGE CONCEPT)	26 NOV 97		
MIL-DTL-22202D AIRCRAFT CROSS-SERVICING MANUALS, TECHNICAL, PREPARATION OF	31 MAR 99		
MIL-DTL-22202D, SUPPLEMENT 1 AIRCRAFT CROSS-SERVICING MANUALS, TECHNICAL, PREPARATION OF	31 MAR 99		LIST OF **ISAs** USED WITH MIL-DTL-22202D
MIL-M-22202C MANUAL, TECHNICAL, AIRCRAFT CROSS SERVICING GUIDE; PREPARATION OF	08 JUL 77		
MIL-P-22203 PERFORMANCE DATA REPORT FOR STANDARD AIRCRAFT CHARACTERISTICS CHARTS FOR PILOTED AIRCRAFT	21 SEP 59	NOTICE 1/04 APR 98#	#INACTIVE FOR NEW DESIGN. N LONGER USED EXCEPT FOR REPLACEMENT PURPOSES
MIL-DTL-23618H(AS) MANUALS, TECHNICAL: PERIODIC MAINTENANCE REQUIREMENTS, PREPARATION OF	12 DEC 97	SD 98-1/23 APR 98	

CURRENT SPECIFICATIONS USED FOR PROCUREMENT OF NAVAIR AERONAUTICAL TECHNICAL MANUALS AND TECHNICAL DIRECTIVES

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MIL-M-23782C(AS) MANUALS, TECHNICAL: WORK UNIT CODE; PREPARATION OF	02 NOV 83	SD 93-1/23 AUG 93	
MIL-PRF-28000B DIGITAL REPRESENTATION FOR COMMUNICATION OF PRODUCT DATA: IGES APPLICATION SUBSETS AND IGES APPLICATION PROTOCOLS	30 SEP 99		
MIL-PRF-28001C MARKUP REQUIREMENTS AND GENERIC STYLE SPECIFICATION FOR EXCHANGE OF TEXT AND ITS PRESENTATION	02 MAY 97		
MIL-PRF-28002C RASTER GRAPHICS REPRESENTATION IN BINARY FORMAT, REQUIREMENTS FOR	30 SEP 97		
MIL-PRF-28003A DIGITAL REPRESENTATION FOR COMMUNICATION OF ILLUSTRATION DATA: CGM APPLICATION PROFILE	15 NOV 91	A-1/14 AUG 92	
MIL-STD-38784 STANDARD PRACTICE FOR MANUALS, TECHNICAL: GENERAL STYLE AND FORMAT REQUIREMENTS	02 JUL 95	SD 98-1/04 JUN 98	
MIL-HDBK-38790 PRINTING PRODUCTION OF TECHNICAL MANUALS	24 FEB 97		
MIL-PRF-38793B TECHNICAL MANUALS: CALIBRATION PROCEDURES - PREPARATION	06 FEB 97		
MIL-DTL-81218C(AS) MANUALS, TECHNICAL: AIRCRAFT ENGINE INTERMEDIATE AND DEPOT MAINTENANCE, PREPARATION OF (WORK PACKAGE CONCEPT)	26 NOV 97		
MIL-C-81222C(AS) CHECKLISTS; FLIGHT CREW, PREPARATION OF	01 FEB 74	A-1/22 FEB 78 SD 87-1/09 SEP 87 SD 88-1/11 AUG 88	
MIL-M-81260A(AS) MANUALS, TECHNICAL: AIRCRAFT/SYSTEM/EQUIPMENT MAINTENANCE	28 MAY 71	A-1/29 OCT 71 SD 90-1/05 NOV 90 NOTICE 1/17 SEP 97#	#INACTIVE FOR NEW DESIGN. N LONGER USED, EXCEPT FOR REPLACEMENT PURPOSES.

CURRENT SPECIFICATIONS USED FOR PROCUREMENT OF NAVAIR AERONAUTICAL TECHNICAL MANUALS AND TECHNICAL DIRECTIVES

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MIL-M-81310E(AS) MANUALS, TECHNICAL: AIRBORNE WEAPONS/STORES LOADING (CONVENTIONAL AND NUCLEAR) WEAPON ASSEMBLY/DISASSEMBLY/SUPPORT EQUIPMENT CONFIGURATION	01 OCT 94		
MIL-M-81715(AS) MANUALS, TECHNICAL, SHIP WEAPON INSTALLATIONS	03 FEB 69		
MIL-DTL-81748D(AS) MANUALS, TECHNICAL: RAPID ACTION CHANGES; GENERAL SPECIFICATION FOR PREPARATION OF	15 DEC 95	SD 97-1/24 NOV 97 SD 98-1/29 JAN 98	
MIL-M-81754A(AS) MANUALS, TECHNICAL: WEAPON SYSTEMS TECHNICAL DOCUMENTATION LIST; PREPARATION OF	25 JUL 80	NOTICE 1/O4 APR 98#	#INACTIVE FOR NEW DESIGN. N LONGER USED, EXCEPT FOR REPLACEMENT PURPOSES
MIL-M-81792A(AS) MANUALS, TECHNICAL: LOADING AND TRANSPORT OF NUCLEAR WEAPONS IN CARGO AIRCRAFT; PREPARATION OF	15 MAR 87		
MIL-C-81810(AS) CHECKLIST, AIRBORNE MISSILE AND GUIDED WEAPON ASSEMBLY	11 JAN 71	NOTICE 1/09 OCT 91	VALIDATION FOR USE
MIL-M-81834A(AS) MANUALS, AIRCRAFT, TACTICAL; REQUIREMENTS FOR PREPARATION OF	28 NOV 80	SD 91-1/23 JAN 91 SD 95-1/08 AUG 95 (NTSA-ED-10-1, REV D)	
MIL-M-81901(AS) MANUAL, TECHNICAL: AIRCRAFT FIRE FIGHTING AND RESCUE; REQUIREMENTS FOR PREPARATION OF INFORMATION FOR INCLUSION IN	03 APR 72		
MIL-DTL-81919C(AS) MANUALS, TECHNICAL, EQUIPMENT OPERATION AND/OR MAINTENANCE INSTRUCTIONS, TECHNICAL CONTENT REQUIREMENTS (WORK PACKAGE CONCEPT)	26 NOV 97		
MIL-DTL-81927C(AS) MANUALS, TECHNICAL: WORK PACKAGE STYLE, FORMAT, AND COMMON TECHNICAL CONTENT REQUIREMENTS; GENERAL SPECIFICATION FOR (WORK PACKAGE CONCEPT)	26 NOV 97		

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MIL-DTL-81928C(AS) MANUALS, TECHNICAL: AIRCRAFT MAINTENANCE INSTRUCTIONS, TECHNICAL CONTENT REQUIREMENTS (WORK PACKAGE CONCEPT)	26 NOV 97		
MIL-DTL-81929C(AS) MANUALS, TECHNICAL: ILLUSTRATED PARTS BREAKDOWN FIGURES; TECHNICAL CONTENT REQUIREMENTS (WORK PACKAGE CONCEPT)	26 NOV 97		
MIL-D-81992B(AS) DIRECTIVES, TECHNICAL: PREPARATION OF	27 JUL 94		
MIL-M-85025A(AS) MANUALS, NATOPS FLIGHT: REQUIREMENTS FOR PREPARATION	08 DEC 80	SD 88-1/11 AUG 88 SD 95-1/08 AUG 95 (NTSA-ED-10-1, REV D)	
MIL-M-85337A(NAVY) QUALITY ASSURANCE PROGRAM FOR TECHNICAL MANUALS	15 NOV 84	SD 86-2/09 DEC 86 SD 87-1/09 JAN 87	
MIL-C-85358(AS) CHECKLIST, AIRCRAFT GUNS JAM CLEARING	05 AUG 80	NOTICE 1/09 OCT 86 NOTICE 2/09 OCT 91 NOTICE 3/30 SEP 97#	#INACTIVE FOR NEW DESIGN. N LONGER USED, EXCEPT FOR REPLACEMENT PURPOSES
MIL-DTL-85383A(AS) MANUALS, TECHNICAL: AIRCRAFT STRUCTURE REPAIR; PREPARATION OF (WORK PACKAGE CONCEPT)	26 NOV 97		
MIL-M-85707(AS) MANUALS, TECHNICAL, DEPOT MAINTENANCE REQUIREMENTS FOR MAINTENANCE/DEMILITARIZATION OF AIRBORNE WEAPONS (CONVENTIONAL); REQUIREMENTS FOR	27 FEB 85	NOTICE 1/10 SEP 91	
MIL-PRF-87268A MANUALS, INTERACTIVE ELECTRONIC TECHNICAL - GENERAL CONTENT, STYLE, FORMAT, AND USER-INTERACTION REQUIREMENTS	01 OCT 95		
MIL-PRF-87269A DATA BASE, REVISABLE - INTERACTIVE ELECTRONIC TECHNICAL MANUALS, FOR THE SUPPORT OF	01 OCT 95		
NTSA-ED-10-1, REV. D NAVY TACTICAL SUPPORT ACTIVITY STYLE GUIDE	AUG 94	SD 95-1/08 AUG 95 SD 97-1/14 APR 97	

CURRENT SPECIFICATIONS USED FOR PROCUREMENT OF NAVAIR AERONAUTICAL TECHNICAL MANUALS AND TECHNICAL DIRECTIVES

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NAVAIR 00-25-150 SPECIFICATION AND POLICY GUIDE FOR PRINTING NAVAIR TECHNICAL MANUALS	30 MAR 90	
NAVAIR 00-25-700 GUIDE TO THE GENERAL STYLE AND FORMAT OF WORK PACKAGE TECHNICAL MANUALS	01 JAN 94	
NAVAIR 00-25-701 TECHNICAL GUIDE FOR ORGANIZATIONAL LEVEL AIRCRAFT WIRING SYSTEMS REPAIR MANUALS	01 SEP 86	
ATA-100 MANUFACTURERS TECHNICAL DATA	15 JAN 95	PREPARATION OF NEW PROGRA DEPOT MANUALS FOR EQUIPMENT
ATA-101 GROUND EQUIPMENT TECHNICAL DATA	01 OCT 86	PREPARATION OF NEW PROGRA DEPOT MANUALS FOR SE
ATA-2100 DIGITAL DATA STANDARDS FOR AIRCRAFT SUPPORT	MAR 95	
CASS ATI DEVELOPMENT GUIDE, VERSION 1.00	14 NOV 94	3.5" FLOPPY DISK ONLY

ATTACHMENT B-1
INDEXING REQUIREMENTS SPECIFICATIONS
COMPACT DISK EXCHANGE (CDEX) REQUIREMENTS

COMPACT DISK EXCHANGE (CDEX). The delivery and interchange of Engineering Drawings and Associated Lists and other Product Data for the Department of Defense electronic repository shall be submitted on Compact Disk Optical Media IAW ISO 9660 and 10149 and comply with the CDEX requirement contained in this attachment.

CORRECTIVE ACTION. The Contractor shall implement and maintain a corrective action system responding to correction of defects that cause the data to be non-compliant to the digital process requirements detailed herein and elsewhere in the delivery order.

DATA PROTECTION AND INTEGRITY. All applicable marking provisions pertaining to limited rights, distribution statements, export controls, and other special labels and markings that are applied to the source data shall also be applied to digital data in all of its forms.

PACKAGING. The sender of digitally encoded transfer packages shall be responsible for protection of the transfer medium or media sets. A packing slip showing the names and volume numbers of each reel, disk or other media type shall be included in each package. A printed listing of the transfer unit declaration files shall be attached to the packing slip.

MEDIA MARKING AND LABELING. As a minimum, each transfer media volume will be labeled with contract number, submittal number (from the DD form 250), system name, highest security classification, and highest distribution statement assigned to the data written to the CR ROM. When multiple volumes of a set are submitted, a sequence number depicting the order relationship for the volumes in a set will also be applied.

VOLUME IDENTIFIER FILE. Each CD Volume shall contain a Volume Identifier File named volumeid.txt. The file should be located at the root level of the file structure. The file, as a minimum, shall contain the Senders Activity Name and CAGE, Senders Point of Contact (POC), Highest security classification associated with the data on the volume, highest distribution statement code associated with the data on the volume, Contract Number, submittal number and Exhibit for which the data represents.

INDEX.DLF FILE. All CD transfer media created for in process review and final delivery shall contain an INDEX.DLF file at the Root level of the file structure. The INDEX.DLF file shall contain an index record for each image file contained on the CD as described in the DATA FIRLD INDEX STRUCTURE (DFIS) shown in table 1.

COMPACT DISK MASTERING. The compact disk virtual image will contain a hierarchical directory structure and file naming conventions consistent with ISO-9660 conventions. CD's produced by this process will be compliant with ISO 10149 Mode 1 (Yellow Book) physical format.

ATTACHMENT B-1
INDEXING REQUIREMENTS SPECIFICATIONS
Table 1
DATA FIELD INDEX STRUCTURE

Seq	DATA ELEMENT	Purpose	Data Size /Type	Mandatory For Input to JEDMICS	Notes *
1	JMX_DocNumber	Document Number	32 bytes / char	x	
2	JMX_DocCage	Commercial and Govn't Entity Reference	5 bytes / char	x	
3	JMX_DocType	Document Type	2 bytes / char	x	(4)
4	JMX_DocumentSize	Size of drawing (May be A Through K and R except I)	2 bytes / char	x	
5	JMX_DocRevision	Document Revision	2 bytes / char	x	(4) (6) (11)
6	JMX_DocumentRevDate	Document Revision Date	18 bytes / char		(7) (12)
7	JMX_DocumentTitle	Document Title	40 bytes / char		
8	JMX_SheetNumber	Sheet Number of Document	12 bytes / char	x	
9	JMX_NumberOfSheets	Number of Sheets for Document	4 bytes / char	x	(15)
10	JMX_DocSheetRevision	Sheet Revision	2 bytes / char	x	(4) (11)
11	JMX_FrameNumber	Frame Number	4 bytes / char	x	
12	JMX_NumberOfFrames	Number of Frames for Sheet	4 bytes / char	x	
13	JMX_FileType	Designator for the Data Format Type of File	5 bytes / char	x	
14	JMX_FileTypeFormat	Description of the Format of the File Type	20 bytes / cha	x	(3) (10)
15	JMX_FileTypeSrcFlavor	Description of the File Type Source Flavor	20 bytes / cha	x	(3) (10)
16	JMX_FileTypeDestFlavor	Description of the File Type Destination Flavor	20 bytes / cha	x	(3) (10)
17	JMX_FileTypeContent	Description of the File Type Content	20 bytes / cha	x	(3) (10)
18	JMX_FileTypeVersion	Description of the File Type Version	14 bytes / cha	x	(3) (10)
19	IDX_DfisSourceCage	CAGE Code of The Originator of The DFIS Data Set	5 bytes / char	x	(3)
20	IDX_FileName	File Name of Image File (without extension)	8 bytes / char	x	(8)
21	IDX_FileExtension	File Extension of Image File	3 bytes / char	x	(8)
22	IDX_FilePath	File Path Where Image File is Located	242 bytes/ char	x	(8) (9)
23	IDX_MediaVolumeID	Media Volume ID of Media Where File is Located	11 bytes / char	x	(8)
24	IDX_MajorGroup	Major Group Designation Within Index	20 bytes /char		
25	IDX_MinorGroup	Minor Group Designation Within Index	8 bytes / char		
26	JMX_SecurityLevel	Security Level	1 byte / char	x	
27	JMX_Rights	Viewing Rights	1 byte / char	x	"U" or "L"
28	JMX_ForeignSecure	Indicates if Foreign Personnel May View the Drawing	1 byte / char	x	"N" or "Y"
29	JMX_Nuclear	Indicates if Drawing Contains Nuclear Equipment	1 byte / char	x	"N" or "Y"
30	JMX_Subsafe	Indicates if Critical Safety	1 byte / char	x	"N" or "Y"
31	JMX_AirType	Model/Device	6 bytes / char	x	
32	JMX_Apl	Allowance Parts List	35 bytes /char		
33	JMX_CadInfo	Computer Aided Design Reference	2 bytes / char		
34	JMX_ControlCode	Activity Code Furnished by Procuring Activity	2 btyes / char	x	
35	JMX_Hsc	Hierarchical Structure Code	12 bytes / char		

36	JMX_Nsn	National Stock Number	13 bytes / char		
37	JMX_Uic	Unit Identification Code	5 bytes / char		
38	JMX_System	Associated Equipment/System Group	32 bytes / char	X	
39	JMX_Nomenclature	Name of Equipment Described in the Drawing	20 bytes /char	X	
40	JMX_ShipClass	Ship Classification	4 bytes / char		
41	JMX_ShipTypeHullNum	Ship Type/Hull Number Classification	9 bytes / char		
42	JMX_MasterLocation	Engineering Drawing Master Location	30 bytes /char		
43	JMX_OfflineLocation	Engineering Drawing Off-line Location	80 bytes /char		
44	JMX_ParentCage	CAGE of Parent Drawing	5 bytes / char		
45	JMX_ParentDocNumber	Drawing Number of Parent Drawing	32 bytes / char		
46	JMX_PartNumber	Identifies Associated Part Number With CAGE	32 bytes / char	X	
47	JMX_SubSheet	Further Identifies Sheet	3 bytes / char		
48	JMX_Succeeding	Drawing Number and CAGE of Superseding Drawing	20 bytes /char		
49	JMX_DistStmt	Distribution Statement	2 bytes / char	X	
50	JMX_AccDocType	Accompanying Document - Document Type	2 bytes / char	x	(5) (13)
51	JMX_AccDocNumber	Accompanying Document - Document Number	32 bytes / char	x	(5) (13)
52	JMX_AccDocCage	Accompanying Document - CAGE Code	5 bytes / char	x	(5) (13)
53	JMX_AccDocRevision	Accompanying Document - Document Revision	2 bytes / char	x	(4) (5) (13)
54	[Blank]	[This Field Reserved For Future Use]	0 bytes / char		(13)
55	[Blank]	[This Field Reserved For Future Use]	0 bytes / char		(13)
56	JMX_WeaponsSystemCode	Weapon System Code	15 bytes / char		
57	IDX_DfisVersion	Version of the DFIS Structure Implemented	4 bytes / char	x	
58	Record End	Indicate end of record CR/LF (Hex 0D0A)	2 bytes	x	

* See notes.

NOTES:

(1) The Data File Index Structure (DFIS) is a character delimited ASCII text file with one Image Row Entry (Record) per image referencing a data file in a hierarchical directory structure. The file and hierarchical directory structure naming convention is not pre-defined. Each Image Row Entry contains a sequenced series of pre-defined standard Data Elements (Fields) separated by the pipe bar character "|". Image Row Entries are separated by a Carriage Return/Line Feed (CR/LF). There should be no blank lines, or lines that do not conform to an Image Row Entry description as defined in the DFIS.

(2) The DFIS file format does not pre-define the size (width) of the Data Elements. Data Element sizes defined indicate the maximum size allowed. Padding of Data Elements is not required (i.e. sheet 1 can be entered as "|1|" and does not require an entry of "|000000000001|". All entries in Data Elements should be uppercase. Leading and trailing spaces within the Data Element are ignored(i.e. "| 1 |" will be interpreted the same as "|1|". Null entries may represented by "||".

(3) DFIS Usage Only. These Data Elements are informational within the DFIS and are not used as is valid, "||" is invalid). "Blank" is not a valid entry for other Mandatory Data Elements.

(4) Mandatory Data Element when Image Row Entry is an Accompanying Document.

(5) The Document Revision (Data Element 5) for multiple sheet documents will be the same as the Sheet Revision (Data Element 10) for Sheet 1 of the document for the other sheets of the document.

(6) Enter the date of the original drawing when drawing is the original release (i.e. Data Element 10 (Sheet Revision) is blank).

(7) If media is an ISO-9660 Compact Disk, Data Elements 20, 21, 22, and 23 (Filename, File Extension, File Path, and Media Volume ID) entries must contain only d-characters (i.e., the letters A through Z (upper case), the numbers 0 through 9, and the underscore symbol "_"). Corresponding file names of the data files on the media should also conform to being only d-characters.

(8) If media is an ISO-9660 Compact Disk, Data Element 22 (File Path) should not exceed 66 characters (including any drive designator, colon, directory names, and forward slashes), and should include no more then eight (8) levels in a directory hierarchy. Individual directory names within the File Path may contain no more than eight (8) d-characters (i.e., the letters A through Z (upper case), the numbers 0 through 9, and the underscore symbol "_"). Corresponding file paths on the media to the data files should also conform to the aforementioned.

(9) Data Element 13 (File Type) is the JEDMICS five character File Type code which indicates the file format of the image file (e.g. CALS Type I raster, Autocad 13 Vector, etc.). A listing of current JEDMICS values must be obtained to properly fill out this Data Element. Data Elements 14 through 19 are descriptors of Data Element 13.

(10) JEDMICS 2.5 stores only one revision value for an Individual Sheet of a document, Sheet Revision. This value is stored in both the Document Revision and Sheet Revision database fields within JEDMICS 2.5. The Drawing Revision is calculated by JEDMICS 2.5 during execution, using the drawing book algorithm. For this reason, both the Document Revision and Sheet Revision database fields within JEDMICS 2.5 will be populated with the same DFIS Data Element, Sheet Revision (Data Element 10).

(11) Dates will be expressed in the following format: DD-MON-YY:HH24:MI:SS were DD is the Day, MON is the Month, YY is the Year, HH24 is the 24 hour representation of the Hour (i.e. 15 for 3:00PM), MI is the Minutes, and SS is the Seconds. Examples include "27-JUN-96:15:50:59" and 28-JAN-92:00:00:00.

(12) ACCOMPANYING DOCUMENT NOTES:

(12 A1.) Data Elements 1, 2, 3, 5, & 10 (Document Number, CAGE Code, Document Type, Document Revision, and Sheet Revision) pertain to the Parent Document when the identified image is an Accompanying Document. Only the aforementioned Data Elements should contain entries pertaining to the Parent Document for an Image Row Entry describing an Accompanying Document; all other Data Elements pertain to the Accompanying Document. Within JEDMICS 2.5, an Accompanying Document is associated with a Parent Document's Document Revision (Sheet Revision of Sheet 1 of the Parent Document). Therefore, during upload of an Accompanying Document to a JEDMICS 2.5 system, the Parent Document Revision for an Accompanying Document within JEDMICS 2.5 will be populated with the DFIS Data Element 5 (Parent Document Revision). Data Element 10 (Parent Document Sheet Revision) is ignored during the upload of an Accompanying Document to a JEDMICS 2.5 system.

(12 A2.) Data Elements 54 and 55 are not defined in current implementation of the index but are retained as placeholders for future use. These Data Elements should be null.

(12 A3.) If Data Element 51 (Accompanying Document Number) is non-null and contains entries other than blanks, then the Image Row Entry is assumed to be an Accompanying Document.

(12 A4.) Data Element 52, (Accompanying Document CAGE Code) is included in the Index but is not currently used in populating the JEDMICS 2.5 database during a JEDMICS import. The Accompanying Document CAGE Code in JEDMICS 2.5 is assumed to be the same as the Base Document CAGE Code (Data Element 2, JMX_cage). Data Element 52 is included only to provide the ability to accurately capture the data for potential future use. Data Element 2 (Base Document CAGE Code) should not be used to reflect the actual Accompanying Document CAGE code if it is different from the Base Document CAGE Code. Doing so will cause the relationship between the Accompanying Document and the Base Document to not be established within the JEDMICS 2.5 database.

(13) IDX.DFIS Version "CD's" using this structure shall enter 1.0.

Range Values. The following fields employ range value checking. Only the values listed herein shall be used when populating the following fields.

Document Size field. The value for the document size field shall be selected from the following approved values. A, B, C, D, E, F, G, H, J, K, R.

File Type field. The complete list of file types can be found in Table 2. When an Appropriate file type is not listed in Table 1, contact NAVAIRSYSCOM AIR-3.0J1 AT (301)757-9158 for a new file type assignment.

Rights field. The value of the rights field shall reflect the following Government Rights in Data values. L (Limited rights), U (Unlimited rights.

Foreign Secure field, Nuclear and Subsafe fields. The foreign secure, nuclear and Sub-safe fields shall contain the value Y if the condition is true and the value N if the condition is false.

Distribution Statement Code field. The distribution statement code value shall be as specified in each delivery order. The acceptable values are A, B, C, D, E, F and X.

Table 2

JEDMICS Data File Types

File Type	Comments	File Ext	Format Code	Source Flavor	Dest Flavor	Content Code	Format Code Desc	Source Flavor Desc	Dest Flavor Desc	Conte Code D
1	JEDMICS CCITT4	C4	RSTR	C4	C4	-	Raster Format	JEDMICS CCITT4	JEDMICS CCITT4	-
2	IGES-2D v3	IGS	VCTR	IGES	V3	-	Vector Format	IGES Format	V3	-
3	CGM Type 1	CGM	CGM	CGM	T1	-	CGM Format	Compu Graph Metafile	Type 1	-
4	SGML	SGM	SGML	SGML	-	-	SGML Format	Std.Gen. Markup Lang	-	-
5	Text File	TXT	ASCI	TEXT	-	-	Text Format	ASCII Text File	-	-
6	Offline / Unknown	OFF	OFFL	OFFL	-	-	Offline Format	Offline Image unknwn	-	-
7	NIRS/NIFF File	NIF	RSTR	NIFF	-	-	Raster Format	NAVY TIFF	-	-
8	CALS Type 1	CAL	RSTR	CALS	-	-	Raster Format	CCITT G4 Type 1 CALS	-	-
9	Unknown file format	UNK	BIN	UNKN	-	-	Binary Format	Unknown file format	-	-
20	TIFF Group 6	TIF	RSTR	TIFF	G6	-	Raster Format	TIFF raster	Group 6	-
21	PCX	PCX	RSTR	PCX	ALL	NATIVE	Raster Format	PC PaintBrush	ALL	NATIV
23	Encapsulated Postscript	EPS	RSTR	EPS	-	-	Raster Format	Encapsul. postscript	-	-
25	Unknown Raster	RST	RSTR	UNKN	-	-	Raster Format	Unknown Raster file	-	-
26	Off-line - restricted	EXT	EXT	-	-	-	External	Offline restricted	-	-
27	CALS Type 2	CT2	RSTR	CALS2	ALL	NATIVE	Raster Format	CCITT G4 Type 2 CALS	ALL	NATIV
28	Off-line - not scanned	NOF	NIOF	NIOF	NIOF	-	No Image on File	No Image scanned	No Image on File	-
29	PDF v2.1	PDF	DOC	PDF	V2.1	NATIVE	Wordprocessing	Portable Doc Format	Version 2.1	NATIV

30	ACAD R9 NATIVE	DWG	CAD	ACAD	R9	NATIVE	CAD Format	AutoCAD Drawing file	Release 9	NATIV
31	ACAD R10 NATIVE	DWG	CAD	ACAD	R10	NATIVE	CAD Format	AutoCAD Drawing file	Release 10	NATIV
32	ACAD R11 NATIVE	DWG	CAD	ACAD	R11	NATIVE	CAD Format	AutoCAD Drawing file	Release 11	NATIV
33	ACAD R12 NATIVE	DWG	CAD	ACAD	R12	NATIVE	CAD Format	AutoCAD Drawing file	Release 12	NATIV
34	ACAD R13 NATIVE	DWG	CAD	ACAD	R13	NATIVE	CAD Format	AutoCAD Drawing file	Release 13	NATIV
35	ACAD R14 NATIVE	DWG	CAD	ACAD	R14	NATIVE	CAD Format	AutoCAD Drawing file	Release 14	NATIV
36	ACAD R9 ZIP	ZIP	CAD	ACAD	R9	ZIP	CAD Format	AutoCAD Drawing file	Release 9	ZIP
37	ACAD R10 ZIP	ZIP	CAD	ACAD	R10	ZIP	CAD Format	AutoCAD Drawing file	Release 10	ZIP
38	ACAD R11 ZIP	ZIP	CAD	ACAD	R11	ZIP	CAD Format	AutoCAD Drawing file	Release 11	ZIP
39	ACAD R12 ZIP	ZIP	CAD	ACAD	R12	ZIP	CAD Format	AutoCAD Drawing file	Release 12	ZIP
40	ACAD R13 ZIP	ZIP	CAD	ACAD	R13	ZIP	CAD Format	AutoCAD Drawing file	Release 13	ZIP
41	ACAD R14 ZIP	DWG	CAD	ACAD	R14	ZIP	CAD Format	AutoCAD Drawing file	Release 14	ZIP
42	ACAD3D R13 NATIVE	DWG	CAD	ACAD3D	R13	NATIVE	CAD Format	AutoCAD 3D Drawing	Release 13	NATIV
43	ACAD3D R13 ZIP	ZIP	CAD	ACAD3D	R13	ZIP	CAD Format	AutoCAD 3D Drawing	Release 13	ZIP
44	ACAD DXF	DXF	VCTR	DXF	ALL	NATIVE	Vector Format	AutoCAD DXF Neutral	ALL	NATIV
45	CADENCE v6 NATIVE	DGN	CAD	ALLEGR	V6	NATIVE	CAD Format	CADENCE ALLegro Dgn	Version 6	NATIV
46	CADENCE v7 NATIVE	DGN	CAD	ALLEGR	V7	NATIVE	CAD Format	CADENCE ALLegro Dgn	Version 7	NATIV
47	CADENCE v8 NATIVE	DGN	CAD	ALLEGR	V8	NATIVE	CAD Format	CADENCE ALLegro Dgn	Version 8	NATIV
48	CADENCE v9 NATIVE	DGN	CAD	ALLEGR	V9	NATIVE	CAD Format	CADENCE ALLegro Dgn	Version 9	NATIV
49	CADENCE v10 NATIVE	DGN	CAD	ALLEGR	V10	NATIVE	CAD Format	CADENCE ALLegro Dgn	Version 10	NATIV
50	CADENCE v11 NATIVE	DGN	CAD	ALLEGR	V11	NATIVE	CAD Format	CADENCE ALLegro Dgn	Version 11	NATIV

51	CADENCE v6 tar	TAR	CAD	ALLEGR	V6	TAR	CAD Format	CADENCE ALLegro Dgn	Version 6	TAR
52	CADENCE v7 tar	TAR	CAD	ALLEGR	V7	TAR	CAD Format	CADENCE ALLegro Dgn	Version 7	TAR
53	CADENCE v8 tar	TAR	CAD	ALLEGR	V8	TAR	CAD Format	CADENCE ALLegro Dgn	Version 8	TAR
54	CADENCE v9 tar	TAR	CAD	ALLEGR	V9	TAR	CAD Format	CADENCE ALLegro Dgn	Version 9	TAR
55	CADENCE v10 tar	TAR	CAD	ALLEGR	V10	TAR	CAD Format	CADENCE ALLegro Dgn	Version 10	TAR
56	CADENCE v11tar	TAR	CAD	ALLEGR	V11	TAR	CAD Format	CADENCE ALLegro Dgn	Version 11	TAR
57	CADENCE v6 ZIP	ZIP	CAD	ALLEGR	V6	ZIP	CAD Format	CADENCE ALLegro Dgn	Version 6	ZIP
58	CADENCE v7 ZIP	ZIP	CAD	ALLEGR	V7	ZIP	CAD Format	CADENCE ALLegro Dgn	Version 7	ZIP
59	CADENCE v8 ZIP	ZIP	CAD	ALLEGR	V8	ZIP	CAD Format	CADENCE ALLegro Dgn	Version 8	ZIP
60	CADENCE v9 ZIP	ZIP	CAD	ALLEGR	V9	ZIP	CAD Format	CADENCE ALLegro Dgn	Version 9	ZIP
61	CADENCE v10 ZIP	ZIP	CAD	ALLEGR	V10	ZIP	CAD Format	CADENCE ALLegro Dgn	Version 10	ZIP
62	CADENCE v11 ZIP	ZIP	CAD	ALLEGR	V11	ZIP	CAD Format	CADENCE ALLegro Dgn	Version 11.x	ZIP
63	ANVIL v5 NATIVE	ANV	CAD	ANVILU	R5.X	NATIVE	CAD Format	ANVIL-5000 Mech Unix	Release 5.x	NATIV
64	ANVIL v5 tar	TAR	CAD	ANVILU	R5.X	TAR	CAD Format	ANVIL-5000 Mech Unix	Release 5.x	TAR
65	ANVIL-win v5 NATIVE	ANV	CAD	ANVILW	R5.X	NATIVE	CAD Format	ANVIL-5000 Mech Win	Release 5.x	NATIV
66	ANVIL-win v5 ZIP	ZIP	CAD	ANVILW	R5.X	ZIP	CAD Format	ANVIL-5000 Mech Win	Release 5.x	ZIP
67	AP201-I	TXT	PDES	AP201	I	NATIVE	PDES Format	Explicit Draughting	I	NATIV
68	AP202-E	TXT	PDES	AP202	E	NATIVE	PDES Format	Assoc. Draughting	E	NATIV
69	AP202-F	TXT	PDES	AP202	F	NATIVE	PDES Format	Assoc. Draughting	F	NATIV
70	AP202-I	TXT	PDES	AP202	I	NATIVE	PDES Format	Assoc. Draughting	I	NATIV
71	AP203-I	TXT	PDES	AP203	I	NATIVE	PDES Format	Config. Control Dgn	I	NATIV
72	AP207-E	TXT	PDES	AP207	E	NATIVE	PDES Format	Sheet Metal Die Dgn	E	NATIV

73	AP207-F	TXT	PDES	AP207	F	NATIVE	PDES Format	Sheet Metal Die Dgn	F	NATIV
74	AP207-I	TXT	PDES	AP207	I	NATIVE	PDES Format	Sheet Metal Die Dgn	I	NATIV
75	AP210-E	TXT	PDES	AP210	E	NATIVE	PDES Format	PCA: Design & Mfg	E	NATIV
76	AP210-F	TXT	PDES	AP210	F	NATIVE	PDES Format	PCA: Design & Mfg	F	NATIV
77	AP210-I	TXT	PDES	AP210	I	NATIVE	PDES Format	PCA: Design & Mfg	I	NATIV
78	AP213-E	TXT	PDES	AP213	E	NATIVE	PDES Format	NC Process Plans	E	NATIV
79	AP213-F	TXT	PDES	AP213	F	NATIVE	PDES Format	NC Process Plans	F	NATIV
80	AP213-I	TXT	PDES	AP213	I	NATIVE	PDES Format	NC Process Plans	I	NATIV
81	AP214-E	TXT	PDES	AP214	E	NATIVE	PDES Format	Core Data Automotive	E	NATIV
82	AP214-F	TXT	PDES	AP214	F	NATIVE	PDES Format	Core Data Automotive	F	NATIV
83	AP214-I	TXT	PDES	AP214	I	NATIVE	PDES Format	Core Data Automotive	I	NATIV
84	AP223-E	TXT	PDES	AP223	E	NATIVE	PDES Format	Dgn/Mfg Cast Parts	E	NATIV
85	AP223-F	TXT	PDES	AP223	F	NATIVE	PDES Format	Dgn/Mfg Cast Parts	F	NATIV
86	AP223-I	TXT	PDES	AP223	I	NATIVE	PDES Format	Dgn/Mfg Cast Parts	I	NATIV
87	AP224-E	TXT	PDES	AP224	E	NATIVE	PDES Format	Proc Plan Mach. Feat	E	NATIV
88	AP224-F	TXT	PDES	AP224	F	NATIVE	PDES Format	Proc Plan Mach. Feat	F	NATIV
89	AP224-I	TXT	PDES	AP224	I	NATIVE	PDES Format	Proc Plan Mach. Feat	I	NATIV
90	AP232-E	TXT	PDES	AP232	E	NATIVE	PDES Format	STEP TDP	E	NATIV
91	AP232-F	TXT	PDES	AP232	F	NATIVE	PDES Format	STEP TDP	F	NATIV
92	AP232-I	TXT	PDES	AP232	I	NATIVE	PDES Format	STEP TDP	I	NATIV
93	APOLLO NATIVE	TXT	CAD	APOLLO	ALL	NATIVE	CAD Format	Soltire Apollonius	ALL	NATIV
94	APOLLO ZIP	ZIP	CAD	APOLLO	ALL	ZIP	CAD Format	Soltire Apollonius	ALL	ZIP
95	APT	APT	MFG	APT	ALL	NATIVE	CAM Format	Auto Prog Tool (NC)	ALL	NATIV

96	AUTOTROL B-5000	AB5	CAD	AUTB5K	ALL	NATIVE	CAD Format	AUTO-TROL-BASE 5000	ALL	NATIV
97	AUTOTROL F-5000	AF5	CAD	AUTF5K	ALL	NATIVE	CAD Format	AUTO-TROL-FULL 5000	ALL	NATIV
98	AUTOTROL M-5000	AM5	CAD	AUTM5K	ALL	NATIVE	CAD Format	AUTO-TROL-MID 5000	ALL	NATIV
99	AUTOTROL 7000	A70	CAD	AUTS7K	ALL	NATIVE	CAD Format	AUTO-TROL-7000	ALL	NATIV
100	BCL	BCL	MFG	BCL	ALL	NATIVE	CAM Format	BINARY CUTTER LOC.	ALL	NATIV
101	BMP	BMP	RSTR	BMP	ALL	NATIVE	Raster Format	PC Win Bitmap Image	ALL	NATIV
102	BRAVO 3 NATIVE	BRA	CAD	BRAVO	V3	NATIVE	CAD Format	Applicon Bravo	Version 3	NATIV
103	BRAVO 4.9 NATIVE	BRA	CAD	BRAVO	V4.9	NATIVE	CAD Format	Applicon Bravo	Version 4.9	NATIV
104	BRAVO 3 tar	TAR	CAD	BRAVO	V3	TAR	CAD Format	Applicon Bravo	Version 3	TAR
105	BRAVO 4.9 tar	TAR	CAD	BRAVO	V4.9	TAR	CAD Format	Applicon Bravo	Version 4.9	TAR
106	CADAM v3 NATIVE	CDM	CAD	CADAM	V3	NATIVE	CAD Format	Dassault Cadam	Version 3	NATIV
107	CADAM v3 tar	TAR	CAD	CADAM	V3	TAR	CAD Format	Dassault Cadam	Version 3	TAR
108	CADDS 4X NATIVE	CAD	CAD	CADDS	V4.X	NATIVE	CAD Format	CV CADDSnX Solid	Version 4.x	NATIV
109	CADDS 5X NATIVE	CAD	CAD	CADDS	V5.X	NATIVE	CAD Format	CV CADDSnX Solid	Version 5.x	NATIV
110	CADDS 4X tar	TAR	CAD	CADDS	V4.X	TAR	CAD Format	CV CADDSnX Solid	Version 4.x	TAR
111	CADDS 5x tar	TAR	CAD	CADDS	V5.X	TAR	CAD Format	CV CADDSnX Solid	Version 5.x	TAR
112	CADKEY v6 NATIVE	CAD	CAD	CADKEY	V6	NATIVE	CAD Format	CadKey Professional	Version 6	NATIV
113	CADKEY v7 NATIVE	CAD	CAD	CADKEY	V7	NATIVE	CAD Format	CadKey Professional	Version 7	NATIV
114	CADKEY v6 ZIP	ZIP	CAD	CADKEY	V6	ZIP	CAD Format	CadKey Professional	Version 6	ZIP
115	CADKEY v7 ZIP	ZIP	CAD	CADKEY	V7	ZIP	CAD Format	CadKey Professional	Version 7	ZIP
116	CADMPR v3r6 NATIVE	CAD	CAD	CADMPR	V3R6	NATIVE	CAD Format	Dassault Prof. Cadam	Version 3	NATIV
117	CADMPR v3r7 NATIVE	CAD	CAD	CADMPR	V3R7	NATIVE	CAD Format	Dassault Prof. Cadam	Version 3	NATIV

118	CADMPR v3r6 tar	TAR	CAD	CADMPR	V3R6	TAR	CAD Format	Dassault Prof. Cadam	Version 3	TAR
119	CADMPR v3r7 tar	TAR	CAD	CADMPR	V3R7	TAR	CAD Format	Dassault Prof. Cadam	Version 3	TAR
120	CATIA v2 NATIVE	CAT	CAD	CATIA	V2	NATIVE	CAD Format	Dassault CATIA	Version 2	NATIV
121	CATIA v3 NATIVE	CAT	CAD	CATIA	V3	NATIVE	CAD Format	Dassault CATIA	Version 3	NATIV
122	CATIA v4 NATIVE	CAT	CAD	CATIA	V4.X	NATIVE	CAD Format	Dassault CATIA	Version 4.x	NATIV
123	CATIA v2 tar	TAR	CAD	CATIA	V2	TAR	CAD Format	Dassault CATIA	Version 2	TAR
124	CATIA v3 tar	TAR	CAD	CATIA	V3	TAR	CAD Format	Dassault CATIA	Version 3	TAR
125	CATIA v4 tar	TAR	CAD	CATIA	V4.X	TAR	CAD Format	Dassault CATIA	Version 4.x	TAR
126	CATIA v2 ZIP	ZIP	CAD	CATIA	V2	ZIP	CAD Format	Dassault CATIA	Version 2	ZIP
127	CATIA v3 ZIP	ZIP	CAD	CATIA	V3	ZIP	CAD Format	Dassault CATIA	Version 3	ZIP
128	CATIA v4 ZIP	ZIP	CAD	CATIA	V4.X	ZIP	CAD Format	Dassault CATIA	Version 4.x	ZIP
129	CCG4	CG4	RSTR	CCG4	ALL	NATIVE	Raster Format	CCITT Group 4	ALL	NATIV
130	CALCOMP GL	GL	RSTR	CCGL	ALL	NATIVE	Raster Format	CalComp Graphic Lang	ALL	NATIV
131	CALCOMP RF	RF	RSTR	CCRF	ALL	NATIVE	Raster Format	CalComp Ras. Format	ALL	NATIV
132	CALCOMP RFIL	RFI	RSTR	CCRFIL	ALL	NATIVE	Raster Format	CalComp Intlc Raster	ALL	NATIV
133	CALCOMP RFUN	RFU	RSTR	CCRFUN	ALL	NATIVE	Raster Format	CalComp Raster Uncom	ALL	NATIV
134	CGM Type 2	CGM	VCTR	CGM	V2	NATIVE	Vector Format	Compu Graph Metafile	Version 2	NATIV
135	ClarisWorks 1 mac	CLW	SPRD	CLARM	V1	NATIVE	Spreadsheet	ClarisWorks (MAC)	Version 1	NATIV
136	ClarisWorks 2 mac	CLW	SPRD	CLARM	V2	NATIVE	Spreadsheet	ClarisWorks (MAC)	Version 2	NATIV
137	ClarisWorks 3 mac	CLW	SPRD	CLARM	V3	NATIVE	Spreadsheet	ClarisWorks (MAC)	Version 3	NATIV
138	ClarisWorks 1 win	CLW	SPRD	CLARW	V1	NATIVE	Spreadsheet	ClarisWorks (WIN)	Version 1	NATIV
139	ClarisWorks 3 win	CLW	SPRD	CLARW	V3	NATIVE	Spreadsheet	ClarisWorks (WIN)	Version 3	NATIV
140	MICROSTATION v4	DGN	CAD	DGN	V4	NATIVE	CAD Format	MICROSTATION 2D/3D	Version 4	NATIV
141	MICROSTATION v5	DGN	CAD	DGN	V5	NATIVE	CAD Format	MICROSTATION 2D/3D	Version 5	NATIV

142	MICROSTATION v4 tar	TAR	CAD	DGN	V4	TAR	CAD Format	MICROSTATION 2D/3D	Version 4	TAR
143	MICROSTATION v5 tar	TAR	CAD	DGN	V5	TAR	CAD Format	MICROSTATION 2D/3D	Version 5	TAR
144	DLF v1	DLF	ASCI	DLF	ALL	NATIVE	Text Format	JEDMICS Metadata	ALL	NATIV
145	DMIS 82	TXT	ELEC	DMIS	1982	NATIVE	Instrument I/O Formt	DMIS (ANSI Y14.5)	1982	NATIV
146	DMIS 94	TXT	ELEC	DMIS	1994	NATIVE	Instrument I/O Formt	DMIS (ANSI Y14.5)	1994	NATIV
147	EDIF0 v2	EDI	ELEC	EDIF0	V2	NATIVE	Instrument I/O Formt	EDIF Level 0	Version 2	NATIV
148	EDIF0 v3	EDI	ELEC	EDIF0	V3	NATIVE	Instrument I/O Formt	EDIF Level 0	Version 3	NATIV
149	EDIF0 v4	EDI	ELEC	EDIF0	V4	NATIVE	Instrument I/O Formt	EDIF Level 0	Version 4	NATIV
150	EDIF1 v2	EDI	ELEC	EDIF1	V2	NATIVE	Instrument I/O Formt	EDIF Level 1	Version 2	NATIV
151	EDIF1 v3	EDI	ELEC	EDIF1	V3	NATIVE	Instrument I/O Formt	EDIF Level 1	Version 3	NATIV
152	EDIF1 v4	EDI	ELEC	EDIF1	V4	NATIVE	Instrument I/O Formt	EDIF Level 1	Version 4	NATIV
153	EDIF2 v2	EDI	ELEC	EDIF2	V2	NATIVE	Instrument I/O Formt	EDIF Level 2	Version 2	NATIV
154	EDIF2 v3	EDI	ELEC	EDIF2	V3	NATIVE	Instrument I/O Formt	EDIF Level 2	Version 3	NATIV
155	EDIF2 v4	EDI	ELEC	EDIF2	V4	NATIVE	Instrument I/O Formt	EDIF Level 2	Version 4	NATIV
156	EIA-274	EIA	ELEC	EIA274	1988	NATIVE	Instrument I/O Formt	ANSI/EIA-274-D-80	1988	NATIV
157	EIA-274 GERBER	EIA	ELEC	GERBER	ALL	NATIVE	Instrument I/O Formt	GERBER EIA-274-X	ALL	NATIV
158	EMS v2 NATIVE	EMS	CAD	EMS	V2.2	NATIVE	CAD Format	Intergraph EMS Solid	Version 2.2	NATIV
159	EMS v3 NATIVE	EMS	CAD	EMS	V3	NATIVE	CAD Format	Intergraph EMS Solid	Version 3	NATIV
160	EMS v2 tar	TAR	CAD	EMS	V2.2	TAR	CAD Format	Intergraph EMS Solid	Version 2.2	TAR
161	EMS v3 tar	TAR	CAD	EMS	V3	TAR	CAD Format	Intergraph EMS Solid	Version 3	TAR
162	EMS v2 ZIP	ZIP	CAD	EMS	V2.2	ZIP	CAD Format	Intergraph EMS Solid	Version 2.2	ZIP

163	EMS v3 ZIP	ZIP	CAD	EMS	V3	ZIP	CAD Format	Intergraph EMS Solid	Version 3	ZIP
164	CIT INGR	CIT	RSTR	IGCIT	ALL	NATIVE	Raster Format	INTERGRAPH CIT	ALL	NATIV
165	I/VDS v2 NATIVE	VDS	BIN	IGVDS	V2	NATIVE	Binary Format	Intergraph I/VDS	Version 2	NATIV
166	I/VDS v2 tar	TAR	BIN	IGVDS	V2	TAR	Binary Format	Intergraph I/VDS	Version 2	TAR
167	I/ROUTE v2 NATIVE	IR	CAD	IROUTE	V2	NATIVE	CAD Format	Intergraph I/Route	Version 2	NATIV
168	I/ROUTE v2 tar	IR	CAD	IROUTE	V2	TAR	CAD Format	Intergraph I/Route	Version 2	TAR
169	I/STRUCT v2 NATIVE	IS	CAD	ISTRCT	V2	NATIVE	CAD Format	Intergraph I/Struct	Version 2	NATIV
170	I/STRUCT v2 tar	IS	CAD	ISTRCT	V2	TAR	CAD Format	Intergraph I/Struct	Version 2	TAR
171	Intergraph RLE	RLE	CAD	INTRLE	-	NATIVE	CAD Format	Intergraph RLE	-	NATIV
172	Encapsulated Postscript Level 1	EPS	RSTR	EPS1	ALL	NATIVE	Raster Format	Encapsulate PS lev 1	ALL	NATIV
173	Encapsulated Postscript Level 2	EPS	RSTR	EPS2	ALL	NATIVE	Raster Format	Encapsulate PS lev 2	ALL	NATIV
174	EXCEL v1	XLS	SPRD	EXCEL	V1	NATIVE	Spreadsheet	Microsoft Excel File	Version 1	NATIV
175	EXCEL v2	XLS	SPRD	EXCEL	V2.2	NATIVE	Spreadsheet	Microsoft Excel File	Version 2.2	NATIV
176	EXCEL v3 mac	XLS	SPRD	EXCEL	V3M	NATIVE	Spreadsheet	Microsoft Excel File	Version 3 mac	NATIV
177	EXCEL v3 win	XLS	SPRD	EXCEL	V3W	NATIVE	Spreadsheet	Microsoft Excel File	Version 3 win	NATIV
178	EXCEL v4 mac	XLS	SPRD	EXCEL	V4M	NATIVE	Spreadsheet	Microsoft Excel File	Version 4 mac	NATIV
179	EXCEL v4 win	XLS	SPRD	EXCEL	V4W	NATIVE	Spreadsheet	Microsoft Excel File	Version 4 win	NATIV
180	EXCEL v5	XLS	SPRD	EXCEL	V5	NATIVE	Spreadsheet	Microsoft Excel File	Version 5	NATIV
181	EXCEL v7	XLS	SPRD	EXCEL	V7	NATIVE	Spreadsheet	Microsoft Excel File	Version 7	NATIV
182	HPGL	HPL	VCTR	HPGL	ALL	NATIVE	Vector Format	HP Graphics Language	ALL	NATIV
183	HPGL2	HPL	VCTR	HPGL2	ALL	NATIVE	Vector Format	HP Graphics Lang. 2	ALL	NATIV
184	HTML v1	HTM	DOC	HTML	V1	NATIVE	Wordprocessing	Hypertext Markup	Version 1	NATIV
185	HTML v2	HTM	DOC	HTML	V2	NATIVE	Wordprocessing	Hypertext Markup	Version 2	NATIV

186	HTML v3	HTM	DOC	HTML	V3	NATIVE	Wordprocessing	Hypertext Markup	Version 3	NATIV
187	IADS v1	IAD	DOC	IADS	V1	NATIVE	Wordprocessing	Authoring Display	Version 1	NATIV
188	IADS v2	IAD	DOC	IADS	V2	NATIVE	Wordprocessing	Authoring Display	Version 2	NATIV
189	IDEAS v2 tar	TAR	CAD	IDEAS	V2	TAR	CAD Format	SDRC I-DEAS	Version 2	TAR
190	IDEAS v2.1 tar	TAR	CAD	IDEAS	V2.1	TAR	CAD Format	SDRC I-DEAS	Version 2.1	TAR
191	IDEAS v3 tar	TAR	CAD	IDEAS	V3	TAR	CAD Format	SDRC I-DEAS	Version 3	TAR
192	IDEAS v2 ZIP	ZIP	CAD	IDEAS	V2	ZIP	CAD Format	SDRC I-DEAS	Version 2	ZIP
193	IGES v4	IGS	VCTR	IGES	V4	NATIVE	Vector Format	IGES	Version 4	NATIV
194	IGES v5	IGS	VCTR	IGES	V5	NATIVE	Vector Format	IGES	Version 5	NATIV
195	IGES v5.2	IGS	VCTR	IGES	V5.2	NATIVE	Vector Format	IGES	Version 5.2	NATIV
196	INTLMT v6 NATIVE	INT	DOC	INTLMT	V6	NATIVE	Wordprocessing	INTERLEAF MOTIF	Version 6	NATIV
197	INTLSG v6 NATIVE	INT	DOC	INTLSG	V6	NATIVE	Wordprocessing	INTERLEAF SGML	Version 6	NATIV
198	INTLWIN v6 NATIVE	INT	DOC	INTLWN	V6	NATIVE	Wordprocessing	INTERLEAF Windows	Version 6	NATIV
199	IPC-D-350 ver B	IPC	ELEC	IPC	VB	NATIVE	Instrument I/O Formt	IPC-D-350	Version B	NATIV
200	IPC-D-350 ver C	IPC	ELEC	IPC	VC	NATIVE	Instrument I/O Formt	IPC-D-350	Version C	NATIV
201	IPC-D-350 ver D	IPC	ELEC	IPC	VD	NATIVE	Instrument I/O Formt	IPC-D-350	Version D	NATIV
202	PDF Indexed	ZIP	DOC	IPDF	ALL	ZIP	Wordprocessing	Indexed PDF	ALL	ZIP
203	JPEG v6	JPG	RSTR	JPEG	V6	NATIVE	Raster Format	Joint Photo Experts	Version 6	NATIV
204	Lotus 123, Release 2	WKS	SPRD	LT123O	R2	NATIVE	Spreadsheet	Lotus 123 File (OS2)	Release 2	NATIV
205	Lotus 123, Version 1	WKS	SPRD	LT123W	V1	NATIVE	Spreadsheet	Lotus 123 File (OS2)	Version 1	NATIV
206	Lotus 123, Version 2	WKS	SPRD	LT123W	V2	NATIVE	Spreadsheet	Lotus 123 File (WIN)	Version 2	NATIV
207	Lotus 123, Version 3	WKS	SPRD	LT123W	V3	NATIVE	Spreadsheet	Lotus 123 File (WIN)	Version 3	NATIV
208	Lotus 123, Version 4	WKS	SPRD	LT123W	V4	NATIVE	Spreadsheet	Lotus 123 File (WIN)	Version 4	NATIV
209	Lotus 123, Version 5	WKS	SPRD	LT123W	V5	NATIVE	Spreadsheet	Lotus 123 File (WIN)	Version 5	NATIV

210	MENTOR v7 tar	TAR	ELEC	MENTOR	V7	TAR	Instrument I/O Formt	Mentor Graphics Dgn	Version 7	TAR
211	MENTOR v8 tar	TAR	ELEC	MENTOR	V8	TAR	Instrument I/O Formt	Mentor Graphics Dgn	Version 8	TAR
212	PCI	PCI	VCTR	PCI	ALL	NATIVE	Vector Format	Vector Plot ext. 907	ALL	NATIV
213	PCL	PCL	VCTR	PCL	ALL	NATIVE	Vector Format	Printer Control Lang	ALL	NATIV
214	Rich Text Format	RTF	DOC	RTF	-	NATIVE	Wordprocessing	Rich Text Format	-	NATIV
215	PERMS	PMS	RSTR	PERMS	V4	NATIVE	Raster Format	PERMS (US Army)	Version 4	NATIV
216	PICT v1	PIC	RSTR	PICT1	ALL	NATIVE	Raster Format	Macintosh PICT 1	ALL	NATIV
217	PICT v2	PIC	RSTR	PICT2	ALL	NATIVE	Raster Format	Macintosh PICT 2	ALL	NATIV
218	PLOT-907	PLT	VCTR	PLOT	907	NATIVE	Vector Format	Vector Plot Format	907	NATIV
219	PROE v13 NATIVE	PRO	CAD	PROE	V13	NATIVE	CAD Format	PTC Pro/Engineer	Version 13	NATIV
220	PROE v14 NATIVE	PRO	CAD	PROE	V14	NATIVE	CAD Format	PTC Pro/Engineer	Version 14	NATIV
221	PROE v15 NATIVE	PRO	CAD	PROE	V15	NATIVE	CAD Format	PTC Pro/Engineer	Version 15	NATIV
222	PROE v16 NATIVE	PRO	CAD	PROE	V16	NATIVE	CAD Format	PTC Pro/Engineer	Version 16	NATIV
223	PROE v17 NATIVE	PRO	CAD	PROE	V17	NATIVE	CAD Format	PTC Pro/Engineer	Version 17	NATIV
224	PROE v13 tar	TAR	CAD	PROE	V13	TAR	CAD Format	PTC Pro/Engineer	Version 13	TAR
225	PROE v14 tar	TAR	CAD	PROE	V14	TAR	CAD Format	PTC Pro/Engineer	Version 14	TAR
226	PROE v15 tar	TAR	CAD	PROE	V15	TAR	CAD Format	PTC Pro/Engineer	Version 15	TAR
227	PROE v16 tar	TAR	CAD	PROE	V16	TAR	CAD Format	PTC Pro/Engineer	Version 16	TAR
228	PROE v17 tar	TAR	CAD	PROE	V17	TAR	CAD Format	PTC Pro/Engineer	Version 17	TAR
229	PROM v13 NATIVE	PRO	MFG	PROM	V13	NATIVE	CAM Format	PTC Pro/Manufacture	Version 13	NATIV
230	PROM v14 NATIVE	PRO	MFG	PROM	V14	NATIVE	CAM Format	PTC Pro/Manufacture	Version 14	NATIV
231	PROM v15 NATIVE	PRO	MFG	PROM	V15	NATIVE	CAM Format	PTC Pro/Manufacture	Version 15	NATIV
232	PROM v13 tar	TAR	MFG	PROM	V13	TAR	CAM Format	PTC Pro/Manufacture	Version 13	TAR

233	PROM v14 tar	TAR	MFG	PROM	V14	TAR	CAM Format	PTC Pro/Manufacture	Version 14	TAR
234	PROM v15 tar	TAR	MFG	PROM	V15	TAR	CAM Format	PTC Pro/Manufacture	Version 15	TAR
235	Postscript Level 1	PS1	RSTR	PS1	ALL	NATIVE	Raster Format	Adobe Postscript L1	ALL	NATIV
236	Postscript Level 2	PS2	RSTR	PS2	ALL	NATIVE	Raster Format	Adobe Postscript L2	ALL	NATIV
237	PTO	PTO	RSTR	PTO	ALL	NATIVE	Raster Format	Patent Trade Office	ALL	NATIV
238	RS494-B	RS	MFG	RS494	VB	NATIVE	CAM Format	NC FILE	Version B	NATIV
239	STL	STL	MFG	STL	ALL	NATIVE	CAM Format	Stereo Lithographic	ALL	NATIV
240	THEDA v2.1 tar	TAR	CAD	THEDA	V2.1	TAR	CAD Format	Incases Theda Design	Version 2.1	TAR
241	THEDA v3.1 tar	TAR	CAD	THEDA	V3.1	TAR	CAD Format	Incases Theda Design	Version 3.1	TAR
242	THEDA v3.2 tar	TAR	CAD	THEDA	V3.2	TAR	CAD Format	Incases Theda Design	Version 3.2	TAR
243	THEDA v4.0 tar	TAR	CAD	THEDA	V4	TAR	CAD Format	Incases Theda Design	Version 4	TAR
244	THEDA TL v2.1	THE	CAD	THEDTL	V2.1	NATIVE	CAD Format	Incases Theda TL	Version 2.1	NATIV
245	THEDA TL v3.1	THE	CAD	THEDTL	V3.1	NATIVE	CAD Format	Incases Theda TL	Version 3.1	NATIV
246	THEDA TL v3.2	THE	CAD	THEDTL	V3.2	NATIVE	CAD Format	Incases Theda TL	Version 3.2	NATIV
247	THEDA TL v4.0	THE	CAD	THEDTL	V4	NATIVE	CAD Format	Incases Theda TL	Version 4	NATIV
248	TIFF LZW	TIF	RSTR	TIFF	ALL	LZW	Raster Format	TIFF raster	ALL	LZW
249	TIFF UNCOM	TIF	RSTR	TIFF	ALL	UNCOM	Raster Format	TIFF raster	ALL	UNCO
250	TIFF G3	TIF	RSTR	TIFFG	G3	CCG3	Raster Format	TIFF CCITT	Version G3	CCG3
251	TIFF G3-2	TIF	RSTR	TIFFG	G3-2	CCG3	Raster Format	TIFF CCITT	Version G3-2	CCG3
252	TIFF G4	TIF	RSTR	TIFFG	G4	CCG4	Raster Format	TIFF CCITT	Version G4	CCG4
253	TRDMRK	TRD	RSTR	TRDMRK	ALL	NATIVE	Raster Format	Trademark	ALL	NATIV
254	UCADAM v14 tar	TAR	CAD	UCADAM	R14	TAR	CAD Format	Micro Cadam	Release 14	TAR
255	UCADAM v14 ZIP	ZIP	CAD	UCADAM	R14	ZIP	CAD Format	Micro Cadam	Release 14	ZIP
256	UCADAM+ v14	UCA	CAD	UCADMP	R14.1	NATIVE	CAD Format	Micro Cadam Plus	Release 14.1	NATIV
257	UCADAM+ v14.x	UCA	CAD	UCADMP	R14	NATIVE	CAD Format	Micro Cadam Plus	Release 14	NATIV

258	UCADAM+ V1R5M1	UCA	CAD	UCADMP	V1R5M1	NATIVE	CAD Format	Micro Cadam Plus	Version 1 R5	NATIV
259	UCADAM+ v14 ZIP	ZIP	CAD	UCADMP	R14	ZIP	CAD Format	Micro Cadam Plus	Release 14	ZIP
260	UCADAM+ V1R5M1 ZIP	ZIP	CAD	UCADMP	V1R5M1	ZIP	CAD Format	Micro Cadam Plus	Version 1 R5	ZIP
261	UDRAFT v3.1	UDR	CAD	UDRAFT	V3.1	NATIVE	CAD Format	CV MicroDraft	Version 3.1	NATIV
262	UDRAFT v3.1 tar	TAR	CAD	UDRAFT	V3.1	TAR	CAD Format	CV MicroDraft	Version 3.1	TAR
263	UDRAFT v3.1 ZIP	ZIP	CAD	UDRAFT	V3.1	ZIP	CAD Format	CV MicroDraft	Version 3.1	ZIP
264	UG v9.1 NATIVE	UG	CAD	UG	V9.1	NATIVE	CAD Format	EDS Unigraphics	Version 9.1	NATIV
265	UG v9.2 NATIVE	UG	CAD	UG	V9.2	NATIVE	CAD Format	EDS Unigraphics	Version 9.2	NATIV
266	UG v10.4 NATIVE	UG	CAD	UG	V10.4	NATIVE	CAD Format	EDS Unigraphics	Version 10.4	NATIV
267	UG v10.5 NATIVE	UG	CAD	UG	V10.5	NATIVE	CAD Format	EDS Unigraphics	Version 10.5	NATIV
268	UG v11 NATIVE	UG	CAD	UG	V11.X	NATIVE	CAD Format	EDS Unigraphics	Version 11.x	NATIV
269	UG v9.1 tar	TAR	CAD	UG	V9.1	TAR	CAD Format	EDS Unigraphics	Version 9.1	TAR
270	UG v9.2 tar	TAR	CAD	UG	V9.2	TAR	CAD Format	EDS Unigraphics	Version 9.2	TAR
271	UG v10.4 tar	TAR	CAD	UG	V10.4	TAR	CAD Format	EDS Unigraphics	Version 10.4	TAR
272	UG v10.5 tar	TAR	CAD	UG	V10.5	TAR	CAD Format	EDS Unigraphics	Version 10.5	TAR
273	UG v11 tar	TAR	CAD	UG	V11.X	TAR	CAD Format	EDS Unigraphics	Version 11.x	TAR
274	VERSAT	VER	RSTR	VERSAT	ALL	NATIVE	Raster Format	Versatec Random Fmt	ALL	NATIV
275	Word v1 dos	DOC	DOC	WORD	V1	NATIVE	Wordprocessing	Microsoft Word	Version 1	NATIV
276	Word v2	DOC	DOC	WORD	V2	NATIVE	Wordprocessing	Microsoft Word	Version 2	NATIV
277	Word v5	DOC	DOC	WORD	V5	NATIVE	Wordprocessing	Microsoft Word	Version 5	NATIV
278	Word v6	DOC	DOC	WORD	V6	NATIVE	Wordprocessing	Microsoft Word	Version 6	NATIV
279	Word v7	DOC	DOC	WORD	V7	NATIVE	Wordprocessing	Microsoft Word	Version 7	NATIV
280	WP v4.2 dos	WPD	DOC	WPDOS	V4.2	NATIVE	Wordprocessing	Wordperfect (DOS)	Version 4.2	NATIV
281	WP v5.x dos	WPD	DOC	WPDOS	V5	NATIVE	Wordprocessing	Wordperfect (DOS)	Version 5	NATIV
282	WP v1 mac	WPD	DOC	WPMAC	V1	NATIVE	Wordprocessing	Wordperfect (MAC)	Version 1	NATIV
283	WP v2 mac	WPD	DOC	WPMAC	V2	NATIVE	Wordprocessing	Wordperfect (MAC)	Version 2	NATIV

284	WP v3 mac	WPD	DOC	WPMAC	V3	NATIVE	Wordprocessing	Wordperfect (MAC)	Version 3	NATIV
285	WP v6 win	WPD	DOC	WPWIN	V6	NATIVE	Wordprocessing	Wordperfect (WIN)	Version 6	NATIV
286	VIDEO	AVI	VID	VIDEO	-	NATIVE	VIDEO	VIDEO	-	NATIV
287	SOUND	WAV	SND	SOUND	-	NATIVE	SOUND	SOUND	-	NATIV
288	ABEL V3.x (by DATA I/O Corp)	ZIP	CAD	ABEL	V3	ZIP	CAD Format	ABEL Data I/O Corp	Version 3	ZIP
289	ABEL V4.x (by DATA I/O Corp)	ZIP	CAD	ABEL	V4	ZIP	CAD Format	ABEL Data I/O Corp	Version 4	ZIP
290	ABEL V5.x (by DATA I/O Corp)	ZIP	CAD	ABEL	V5	ZIP	CAD Format	ABEL Data I/O Corp	Version 5	ZIP
291	ABEL V6.x (by DATA I/O Corp)	ZIP	CAD	ABEL	V6	ZIP	CAD Format	ABEL Data I/O Corp	Version 6	ZIP
292	Altera Maxplus Ver 1.x Binary	ZIP	ELEC	AMXBI	V1	ZIP	Instrument I/O Format	Altera Maxplus Ver 1.x Binary	Version 1	ZIP
293	ASCII – Hex Space (Programming File for Logic Devices	ZIP	ELEC	ASHXSP	Hex	ZIP	Instrument I/O Format	ASCII – Hex Space – Logic Files	Hex Space	ZIP
294	ASCII BIN	ZIP	ELEC	ASBI	-	ZIP	Instrument I/O Format	ASCII BIN	-	ZIP
295	Text File	ZIP	ASCI	TEXT	-	ZIP	Text Format	ASCII Text File	-	ZIP
296	ATLAS Test Language	ZIP	ASCI	ATLAS	-	ZIP	Text Format	ATLAS Test Language	-	ZIP
297	CADD 5x ZIP	ZIP	CAD	CADDS	V5.x	ZIP	CAD Format	CV CADDSnX Solid	Version 5.x	ZIP
298	DEC Binary HEX (DATA IO Format 11)	ZIP	BIN	DEBIHX	F11	ZIP	Binary Format	DEC Binary HEX	Format 11	ZIP
299	DXF (AUTOCAD Ver 12)	ZIP	VCTR	DXF	V12	ZIP	Vector Format	AutoCAD DXF Neutral	Version 12	ZIP
300	EDIF V200 Netlist	ZIP	ELEC	EDIFNL	V200	ZIP	Instrument I/O Format	EDIF Netlist	Version 200	ZIP

301	EDIF V200 Schematics	ZIP	ELEC	EDIFSC	V200	ZIP	Instrument I/O Format	EDIF Schematics	Version 200	ZIP
302	EDIF V300 Netlist	ZIP	ELEC	EDIFNL	V300	ZIP	Instrument I/O Format	EDIF Netlist	Version 300	ZIP
303	EDIF V300 Schematics	ZIP	ELEC	EDIFSC	V300	ZIP	Instrument I/O Format	EDIF Schematics	Version 300	ZIP
304	EDIF V400 Netlist	ZIP	ELEC	EDIFNL	V400	ZIP	Instrument I/O Format	EDIF Netlist	Version 400	ZIP
305	EDIF V400 Schematics	ZIP	ELEC	EDIFSC	V400	ZIP	Instrument I/O Format	EDIF Schematics	Version 400	ZIP
306	Gerber RS-274X (Extended Gerber	ZIP	ELEC	GERBER	274X	ZIP	Instrument I/O Format	GERBER EIA-RS-274-X	Gerber RS-274X	ZIP
307	Gerber Std RS-274C	ZIP	ELEC	GBRSTD	RS274C	ZIP	Instrument I/O Format	GERBER EIA-RS-274	Gerber RS-274C	ZIP
308	Gerber Std RS-274D	ZIP	ELEC	GBRSTD	RS274D	ZIP	Instrument I/O Format	GERBER EIA-RS-274	Gerber RS-274D	ZIP
309	HEX (ASCII)	ZIP	ELEC	ASHEX	-	ZIP	Instrument I/O Format	ASCII HEX	-	ZIP
310	Intel Hex (Programming File For Logic Devices	ZIP	ELEC	ITHX	-	ZIP	Instrument I/O Format	Intel Hex – Logic Devices	-	ZIP
311	INTELLEC 8/MDS HEX	ZIP	ELEC	IHM8	-	ZIP	Instrument I/O Format	INTELLEC 8/MDS HEX	-	ZIP
312	IPC-D-350 Rev B	ZIP	ELEC	IPC	VB	ZIP	Instrument I/O Format	IPC-D-350	Version B	ZIP
313	IPC-D-350 Rev C	ZIP	ELEC	IPC	VC	ZIP	Instrument I/O Format	IPC-D-350	Version C	ZIP
314	IPC-D-350 Rev D	ZIP	ELEC	IPC	VD	ZIP	Instrument I/O Format	IPC-D-350	Version D	ZIP
315	JEDEC EIA JESD3 (Programming File For Logic Devices	ZIP	ELEC	JESD3	-	ZIP	Instrument I/O Format	JEDEC EIA	-	ZIP
316	JEDEC EIA JESD3-A (Programming File for Logic Devices	ZIP	ELEC	JESD3	A	ZIP	Instrument I/O Format	JEDEC EIA	V3-A	ZIP
317	JEDEC EIA JESD3-B (Programming Device for Logic Devices	ZIP	ELEC	JESD3	B	ZIP	Instrument I/O Format	JEDEC EIA	V3-B	ZIP
318	JEDEC EIA JESD3-C (Programming	ZIP	ELEC	JESD3	C	ZIP	Instrument I/O Format	JEDEC EIA	V3-C	ZIP

	Device for Logic Devices									
319	Maxplus Ver 1.x by Altera Corp	ZIP	CAD	MXPLU	V1.x	ZIP	CAD Format	MaxPlus CAD Source Dgn	Version 1.x	ZIP
320	Intel Hex MCS-86 (Programming File for Logic Devices)	ZIP	ELEC	MCS86	-	ZIP	Instrument I/O Format	Intel MCS-86 HEX	-	ZIP
321	Tektronix Hexadecimal	ZIP	ELEC	TKHX	-	ZIP	Instrument I/O Format	Tektronix Hexadecimal	-	ZIP
322	Motorola 32-bit (S-3) Format (Programming File for Logic Devices)	ZIP	ELEC	M32S3	-	ZIP	Instrument I/O Format	Motorola 32-bit (S-3) Format	-	ZIP
323	Motorola EXORmacs Format (Programming File for Logic Devices)	ZIP	ELEC	MEXOR	-	ZIP	Instrument I/O Format	Motorola EXORmacs Format	-	ZIP
324	MS-Access Ver 97 (by Microsoft Corporation)	ZIP	SPRD	ACCESS	V97	ZIP	Spreadsheet	Microsoft Access File	Version 97	ZIP
325	MS-Word Ver 6.x (by Microsoft Corporation)	ZIP	DOC	WORD	V6.x	ZIP	Word Processing	Microsoft Word	Version 6.x	ZIP
326	OrCAD Capture by OrCAD, Inc.	ZIP	CAD	ORCADC	V7.x	ZIP	CAD Format	OrCAD Capture	Version 7.x	ZIP
327	PADS – Perform V.5x by PADS Software, Inc.	ZIP	CAD	PADSP	V5.x	ZIP	CAD Format	PADS – Perform	Version 5.x	ZIP
328	PADS2000 V3.x	ZIP	CAD	PADS2	V3.x	ZIP	CAD Format	PADS2000	Version 3.x	ZIP
329	Pads-Power PCB R2.1 for Win NT 4.0 by PADS Software	ZIP	CAD	PPP	R2.1	ZIP	CAD Format	Pads-Power PCB Win NT 4.0	R2.1	ZIP
330	PALASM 2 V2.x (by ADVANCED MICRO DEVICES, INC)	ZIP	CAD	PALAS2	V2.x	ZIP	CAD Format	PALASM 2-Advanced Micro Device	Version 2.x	ZIP
331	PALASM 4 V1x (by ADVANCED MICRO DEVICES, INC)	ZIP	CAD	PALAS4	V1.x	ZIP	CAD Format	PALASM 4-Advanced Micro Device	Version 1.x	ZIP
332	PASCAL – Unknown	ZIP	ASCI	PASCAL	-	ZIP	Text Format	PASCAL ASCI	-	ZIP
333	PCAD Version 8.x (by ACCEL Incorp)	ZIP	CAD	PCAD	V8.x	ZIP	CAD Format	PCAD (ACCEL Incorp)	Version 8.x	ZIP

334	PowerPCB V2.x by PADS Software, Inc.	ZIP	CAD	PPCB	V2.x	ZIP	CAD Format	PowerPCB	Version 2.x	ZIP
335	QuickBasic 4.x	ZIP	ASCI	Qbasic	V4.x	ZIP	Text Format	QuickBasic – ASCI	Version 4.x	ZIP
336	RACAL-REDAC – Unknown Version	ZIP	CAD	RCRD	-	ZIP	CAD Format	RACAL-REDAC	-	ZIP
337	SpDE Version 5.x (by Quicklogic Corp)	ZIP	CAD	SpDE	V5.x	ZIP	CAD Format	SpDE CAD Source Dgn	Version 5.x	ZIP
338	TIFF Ver 5.0 Compressed	ZIP	RSTR	TIFF	V5	ZIP	Raster Format	TIFF Raster	Version 5	ZIP
339	Unknown ASCII File Format	ZIP	ASCI	UNKNAF	-	ZIP	Text Format	Unknown ASCII File Format	-	ZIP
340	Unknown Binary File Format	ZIP	BIN	UNKNBF	-	ZIP	Binary Format	Unknown Binary File Format	-	ZIP
341	VeriBest Design Capture V14.x	ZIP	CAD	VBSCH	V14.x	ZIP	CAD Format	VERIBEST Design Capture	Version 14.x	ZIP
342	VeriBest PCB V14.x	ZIP	CAD	VBPCB	V14.x	ZIP	CAD Format	VERIBEST PCB Dgn	Version 14.x	ZIP
343	ViewDraw 7.X for Win95 by Viewlogic Systems, Inc.	ZIP	CAD	VWDR95	V7.x	ZIP	CAD Format	ViewDraw for Win 95	Version 7.x	ZIP
344	ViewDraw xX for Win95 by Viewlogic Systems, Inc.	ZIP	CAD	VWDR95	V5.x	ZIP	CAD Format	ViewDraw for Win 95	Version 5.x	ZIP
345	MS-Access 97 (by Microsoft Corp)	MDB	SPRD	ACCESS	V97	NATIVE	Spreadsheet	Microsoft-Access File	Version 97	NATIV
346	CGM Type 3	CGM	VCTR	CGM	V3	NATIVE	Vector Format	CompuGraph Metafile	Version 3	NATIV
347	CGM Type 4	CGM	VCTR	CGM	V4	NATIVE	Vector Format	CompuGraph Metafile	Version 4	NATIV
348	Multiple files	ZIP	BIN	Floppy	All	ZIP	Binary Format	Floppy disk	All	ZIP
349	Computervision	DRW	CAD	PERDES	Micro	NATIVE	CAD Format	Personal Designer	Microdraft	NATIV
350	Solidworks 98	DRW	CAD	SLD	98	NATIVE	CAD Format	Solidworks	98	NATIV
351	AutoCAD 2000	DWG	CAD	ACAD	2000	NATIVE	CAD Format	AutoCAD Drawing File	2000	NATIV
352	AutoCAD 2000	ZIP	CAD	ACAD	2000	ZIP	CAD Format	AutoCAD Drawing File	2000	ZIP
353	MS-Excel Ver 97	XLS	SPRD	EXCEL	97	NATIVE	Spreadsheet	Microsoft Excel File	97	NATIV

354	MS-Word 97	DOC	DOC	WORD	97	NATIVE	Word Processing	Microsoft Word File	97	NATIV
355	Lotus 123 Version 6	WK3	SPRD	LT123W	V6	NATIVE	Spreadsheet	Lotus 123 File (WIN)	Version 6	NATIV
356	Lotus 123 Version 7	WK4	SPRD	LT123W	V7	NATIVE	Spreadsheet	Lotus 123 File (WIN)	Version 7	NATIV
357	ICEM-DDN Version 3.x by ICEM Technologies	ZIP	CAD	ICEMDN	V3.x	ZIP	CAD Format	ICEM-DDN Design File	Version 3.x	ZIP
358	Pro/Engineer V18 by Parametric Technology Corp	ZIP	CAD	PROE	V18	ZIP	CAD Format	PTC Pro/Engineer	Version 18	ZIP
359	Pro/Engineer V2000 by Parametric Technology Corp	ZIP	CAD	PROE	V2000	ZIP	CAD Format	PTC Pro/Engineer	Version 2000	ZIP

ATTACHMENT B-2

NAVAL AIR TECHNICAL DATA AND ENGINEERING SERVICE COMMAND TECHNICAL MANUAL CONVERSION SPECIFICATION (TMCS) Basic, Dated 1 October 1999 Current Revision, 1 February 2000

I. Visual Presentation

A. Requirements

1. The Technical Manual (TM) cover page shall be the first page displayed in the Indexed Portable Document Format (IPDF) TM.
2. When opening TM, the entire cover page and bookmarks shall be visible in the "fit in window" view.
3. Bookmarks shall be collapsed into their respective sections as explained in Section I B, below.
4. Common Adobe fonts or standard MS-Windows fonts shall be used in the IPDF file to match the typeface and font characteristics of the original TM. When an original typeface is unavailable, a substitute typeface shall be selected within the same class as that used in the source document.
5. All blank pages shall be included in the digital file, and shall not be cropped or deleted. Blank pages shall be labeled "This Page Intentionally Left Blank" and centered on page.
6. All digital TMs shall be digitally converted to PDF.
7. All PDF output shall be image plus hidden text for scanned TMs.
8. All 8 ½" x 11" pages shall be scanned/digitally converted at 200 dpi. If higher detail is needed for 8 ½" x 11", e.g. for performance charts, etc., 8 ½" x 11" pages may be scanned at higher resolutions. Foldouts shall normally be scanned at 400 dpi. If foldouts are primarily text, 400 dpi may not be required. In that case, 200 dpi is acceptable for foldouts.
9. PDF files shall be optimized in final save process.

B. Bookmark Generation

1. Bookmarks shall be generated as specified in subparagraphs 2 through 11. The case shall match the TM or shall be the first letter of each word "upper" followed by "lower" except for those as specified in subparagraph 2, 5 and 6 below.
2. The first bookmark shall be labeled "TITLE" and shall link to the TM cover page. The "TITLE" bookmark shall appear even in the absence of any other links within the IPDF TM.
3. A bookmark entry for Table of Contents shall be labeled "Table of Contents."
4. A bookmark entry for the List of Effective Pages shall be labeled "List of Effective Pages". If the TM refers to the List of Effective Pages in any other manner, the bookmark shall follow the TM convention.
5. A bookmark entry for TPDR shall be labeled "TPDR."
6. A bookmark entry for HMWS shall be labeled "HMWS."

7. All section, work package and chapter bookmark entries shall be sequenced according to tables of contents.
8. A bookmark entry for the Illustrations, Tables, Figures and Foldouts shall be labeled as such and indentured under the respective chapter or work package.
9. All glossaries and appendices shall be bookmarked and labeled as such.
10. Supplements shall be handled per the requiring authority direction.
11. As applicable, each bookmark shall be linked to its appropriate destination and/or shall serve as a "drop-down" (indentured) menu.

C. Thumbnail Creation

1. Thumbnails shall be created for all PDF documents covered by this specification.

D. Graphics

1. Graphics, illustrations, drawings or diagrams shall be presented as an image consistent with the paper copy to insure 100% visual accuracy.
2. Foldouts shall not exceed 11" x 17" unless a variance is granted by NATEC.
3. Text within a graphics frame shall be treated as a graphic. A graphics frame is defined as a visible or invisible rectangle around the artwork.
4. Two-tone graphics shall appear with the same level of clarity as in the original.
5. Contrast, light and dark adjustment shall be implemented to insure a quality scan.
6. Blank aprons and large areas of white space on foldouts shall be cropped.

E. Supplements

1. Interim Rapid Action Change (IRAC)

NOTE: The preferred method of linking IRACs to the technical manual is provided below. However, if available funding does not permit linking IRACs to the manual prior to delivery of the digital technical manual, NATEC will provide the links.

- All IRACs shall be bookmarked to the applicable IRAC.
- A hyperlink shall be created from each applicable paragraph in the IRAC to the effected location in the TM.
- A hyperlink shall be created from the effected location in the TM to the applicable paragraph in the IRAC.
- A "sticky" note shall be created that contains the descriptive information copied directly from the issued IRAC.
- Cancelled IRACs shall be retained until incorporated. All cancelled IRACs shall have a stamp underlayed diagonally from bottom left in their PDF file which reads CANCELLED. The font shall be Helvetica Bold at 128 point in a medium shade of gray.

2. Interim Changes to operational manuals shall be bookmarked, but no internal hyperlinks shall be created.

II. Text

Source Documents Which Originated as Digital

NOTE: The preferred method of digital technical manual delivery is to convert directly from the digital source to PDF. Scanning paper is the least preferred method.

B. Accuracy for Digital Data Delivery

1. The Title Page, Tables of Contents, Alphabetical Index, Warnings, Cautions and Notes shall contain no spelling/case errors.
2. Abbreviations and acronyms shall contain no spelling/case errors.
3. Text of a technical nature, whether plain text, hidden text or image plus text, shall be spelled correctly unless covered by an allowance listed herein. This includes, but is not limited to, Maintenance Procedures, Operating Instructions, Inspections, Operating Characteristics, etc.
4. Documents must be spell checked. Words detected by the MS Word 6.0 dictionary as misspelled such as "deenergize, reenergize" or "depressurize, repressurize" or "deweld, reweld" shall be checked against the printed page to verify correct spelling. These words should not be added to a custom dictionary.

B. Searchability of Source Documents Which Originated as Paper

1. All text shall be searchable to the extent of the Optical Character Recognition (OCR) software's capability to recognize the text without manual intervention.

F. Formatting

1. Formatting of each page in the IPDF file shall be visually accurate and validated against the source document.
2. For documents created in digital / editable form, the TM must adhere to all applicable instructions and/or TMCRs.

III. Delivery

A. Media

1. The original paper copy of the TM shall be delivered with the electronic file.
2. Electronic TM files shall be delivered via Compact Disk-Read Only Memory (CD-ROM). The delivery shall include one complete PDF file of the TM.

B. Format

1. If delivery is made via CD, only single sessions shall be delivered.
2. Each TM file shall be named using the TM number.
3. An index.txt file shall accompany each CD identifying the TM number(s) and TM date(s). Commas shall separate the fields in the index.txt file. Each record shall be separated by a carriage return.

TM NUMBER	DATE	STOCK NUMBER	TITLE	FILE NAME	DISK

File Name shall follow the convention of the TM number (use "-" vs. ".") preceded by a letter indicating the document is New ("N"), Revision ("R"), Rapid Action Changes ("A") or Changes/Notices ("C"). The ".pdf" shall be the file extension.

4. A current, digital copy of the rule file used to generate links automatically shall be delivered with each IPDF TM.

IV. Delivery of Technical Manuals in Other than PDF Format

1. Delivery of technical manuals to NATEC in other digital formats (e.g. SGML, XML, etc.) is acceptable with prior coordination with NATEC. This is required to ensure that the digital technical manual is viewable over the web site and can be distributed to the fleet.
2. Local printing of pages from the web site will be prohibited unless supplier of the digital technical manual certifies and verifies that the printed pages are accurate and meet requirements.
3. If a program desires NATEC to distribute an entire printed manual, a PDF version of that manual must be provided to NATEC along with a certification that the PDF version is equivalent to the viewable version. Currently, the Defense Automated Printed Services (DAPS) requires an electronic manual in PDF format to print and distribute paper to the fleet. The Naval Aviation Inventory Control Point (NAVICP) receives orders for NAVAIR technical manuals via the milstrip ordering process. These orders are passed to NATEC and the required technical manual is printed by DAPS from the PDF file.

Attachment C
List of Applicable Documents

The tasks to be performed under this SOW require knowledge of the requirements and/or guidance defined in, but not limited to, the following documents:

SECNAVINST 5216.5C	Department of the Navy Correspondence Manual, 24 Aug 83
SECNAVINST 5212.lB	Records Disposal Manual Mail Handling Procedures Records Management Program Publications & Disposition of Technical Reports & Publications Technical Publications Forms Management Instruction, 28 Dec 89 Security of ADP Sight Inventory of Secret Material Security Regulations
DOD 5200.1-R	DOD Information Security Program Regulations
DOD 5200.2-R	DOD Personnel Security Program Regulations
DOD 5230.25PH	Control of Unclassified Technical Data with Military or Space Applications
DOD 5220.22-M	National Industrial Security Procedures Operating Manual (NISPOM)
DOD 5010.12-M	Data Management Handbook
DOD-STD-963A	Data Item Description
MIL-STD-1806	Marking Technical Data Prepared By or For the Department of Defense
OPNAVINST 5239.1H	Department of the Navy Computer Security
OPNAVINST 5239.1	Department of the Navy Automatic Data Processing
OPNAVINST 5513 (Series)	Security Classification Guides
OPNAVINST 5510.lH	Department of the Navy Information Security Program Regulations
OPNAVINST PO9B2-105(92)	Standard Navy Distribution List
SECNAVINST 5720.42E	Par 8 (excerpt of FOUO) Master Document Control System Report SECRET Inventory Report Classified Destruction Report Project Need-to-Know Lists/ Documentation Library Standard Operating Procedure (SOP) Master Document Control System Report Project Schedules

	Annual Classified Inventory Plan
	Contractor Inventory Transition Plan
OPNAVINST 4790.6	Naval Aviation Maintenance Program
OPNAVINST 8600.2	Naval Aviation Weapons Maintenance Program
NAVAIR 00-25-100	NAVAIR Technical Manual Program
MIL-HDBK-9660	DOD Handbook – DOD Produced CD-ROM Products

ATTACHMENT D

DESCRIPTIONS
FOR FIRM FIXED PRICE ITEMS

NOTE: The descriptions below specifically apply to Contract Line Item Number (CLIN) 0006 for the Base Period described in Section B – Supplies or Services and Prices/Costs of the RFP. These same description requirements shall apply to CLIN and SubCLINs contained in Option Period One, Option Period Two, and Option Period Three.

CLIN 0006 – Technical Manual Preparation and Publishing:

SubCLIN 0006AA (UNIT-PAGE) PAGE CHANGES TO EXISTING TECHNICAL MANUALS: PAGE CHANGE - HARDCOPY TO DIGITAL FORMAT. The subCLIN identified pertains to existing technical manual(s) being delivered to the contractor in hardcopy format (e.g., reproducible copy or negatives) for update and delivery to the government in digital format. All material required, such as revisable masters, CD-ROM(s), direct image copy, reproduced copies, etc. shall be furnished by the contractor and factored into the subCLIN unit price.

SubCLIN 0006AB (UNIT-PAGE) PAGE CHANGES TO EXISTING TECHNICAL MANUALS: PAGE CHANGE - DIGITAL TO DIGITAL FORMAT. The subCLIN identified pertains to existing technical manual(s) being delivered to the contractor in a digital format for update and delivery to the government in digital format. All material required, such as revisable masters, CD-ROM(s), direct image copy, reproduced copies, etc. shall be furnished by the contractor and factored into the subCLIN unit price.

SubCLIN 0006AC (UNIT - PAGE) NEW PAGES IN EXISTING TECHNICAL MANUALS: DIGITAL FORMAT. The subCLIN identified pertains to new pages, consisting of text and/or illustrations, in existing technical manual(s) being prepared in digital format. These pages shall be furnished when changes to existing technical manuals result in any new pages of text and/or illustrations that have not previously existed in the technical manual being updated. All material required, such as revisable masters, CD-ROM(s), direct image copy, reproduced copies, etc. shall be furnished by the contractor and factored into the subCLIN unit price.

SubCLIN 0006AD (UNIT – PAGE) OUTPUT OF PORTABLE DOCUMENT FORMAT (PDF) FILES. This line item pertains to the output of PDF from digital technical manual files (e.g., Word, Interleaf, SGML/XML). Detailed requirements for PDF are identified in the definitions. Digital files shall be delivered on CD-ROM as specified in the TMCR Work Statement/Task Order.

CLIN 0007 – **Technical Manual Conversion**. Filenaming conventions and header data shall be approved by the government unless otherwise specified herein. For pricing purposes, a page unit shall be considered to be 8 ½" X 11".

Note: This contract line item consists of firm fixed price subCLINs, 0007AA through 0007AD. These contract line items will be utilized when the Government requires existing NAVAIR aeronautical technical manual pages to be converted to digital format.

SubCLIN 0007AA (UNIT - PAGE) CONVERSION OF HARDCOPY TO MASTER REVISABLE TEXT FILES IN MICROSOFT WORD FORMAT. This subCLIN pertains to the conversion of hardcopy documents, including parts breakdowns, tables, and charts creating revisable digital source files utilizing Microsoft Word. The resultant digital files shall be completely cleaned up to correct all scanning errors/omissions/deletions. Digital files shall be delivered as specified in the TMCR Work Statement/Task Order.

SubCLIN 0007AB (UNIT - PAGE) CONVERSION OF HARDCOPY TO MASTER REVISABLE TEXT FILES IN INTERLEAF FORMAT. This subCLIN pertains to the conversion of hardcopy documents, including parts breakdowns, tables, and charts creating revisable digital source files utilizing Interleaf. The resultant files shall be completely cleaned up to correct all scanning errors/omissions/deletions. Digital files shall be delivered as specified in the TMCR Work Statement/Task Order.

SubCLIN 0007AC (UNIT- PAGE) CONVERSION OF HARDCOPY OR DIGITAL TEXT OR ILLUSTRATIONS INTO TAGGED IMAGE FILE FORMAT FILES (TIFF). This subCLIN pertains to conversion of hardcopy or digital (e.g., NIRS/NIFF raster format) text or illustrations to TIFF. Digital files shall be delivered as specified in the TMCR Work Statement/Task Order.

SubCLIN 0007AD (UNIT - PAGE) CONVERSION OF HARDCOPY TO PORTABLE DOCUMENT FORMAT (PDF). This subCLIN pertains to the scanning of hardcopy technical manuals into PDF. Detailed requirements for PDF are identified in the definitions. Digital files shall be delivered on CD-ROMs as specified in the TMCR Work Statement/Task Order.

REQUIREMENTS FOR TECHNICAL MANUAL FIRM FIXED PRICE CLIN 0006.
Contract line item number 0006 applies to technical manual requirements which will be ordered by Technical Manual Contract Requirement (TMCR) Work Statement/Task Order on a unit cost or firm fixed price basis. These technical manual efforts shall be prepared to cover operation and maintenance of aircraft, missiles, bombs, targets, and other equipment, and support equipment in support of naval aviation. Technical manual (TM) candidates that relate to CLIN 0006 are listed in Attachment A to the Statement of Work (SOW). The TMs shall be prepared in accordance with cited specifications and the Technical Manual Contract Requirements (TMCR). See **Attachment B-2** of the SOW for detailed specifications. The following requirements apply to Contract Line Item Number (CLIN) 0006 unless otherwise identified and shall be included for the supply of firm prices under CLIN 0006.

(1) TMCR Work Statement/Task Orders shall identify requirements to be prepared and delivered as Changes, Revisions, and/or Pickup Revisions resulting in priced efforts utilizing one or more of the subCLINs under CLIN 0006. The unit prices under CLIN 0006 shall include all required material for the effort. Material to be included in the unit prices shall include outlines (for revisions only), two (2) proof copies, five (5) facsimile/reproduced copies, one (1) set of revisable master files, one (1) set of CD-ROMs, one (1) set of reproducible copy, and one (1) set of direct image copy, Record of Source Data Incorporation and Assembly and Printing Instructions as described in the definitions provided in the basic Statement of Work, paragraph 3.2, General Task 3.3B, line number 18. TMCR Work Statements/Task Orders will identify schedule and delivery requirements for all material.

(2) Source data shall consist of government written changes, marked-up pages, or other data (e.g., Manual Change Requests, dispositioned Technical Publications Deficiency Reports, etc.) identifying the changes required in the existing technical manual(s) affected by the source data provided by the CFA. Source data is validated material provided by the government that forms the basis of the technical manual update. Further research will not be required by the contractor to render the material complete and technically accurate. The source data to be furnished to the contractor by the CFA or NATEC will be listed in the TMCR Work Statement/Task Order and provided prior to issuance of the order, or in less frequent instances, incrementally as work progresses.

(3) In addition to incorporating the changes identified by the government in the source data provided, the contractor shall be responsible for generating all front matter consisting of title/title block/"A" page(s), list of effective pages; change record, forward/preface, table of contents, list of illustrations, list of tables, TPDR page, and editing and proofreading tasks such as changes to technical manual number, page numbers, security classification downgrade markings, minor "strip in" tasks and deletion of change numbers, change bars (symbols), pointed-hand symbols, shaded areas on diagrams, renumbering of paragraphs, or work of a similar nature as applicable, shall also be priced under this category.

(4) In addition to incorporating material specifically marked for update by the government, the contractor shall be required, without further guidance, to ensure consistency of Illustrated Parts Breakdown changes throughout numerical and alphabetical indices, figures, and Group Assembly Parts Lists (GAPL).

(5) Efforts will also include conversion of halftone photographs to line drawings or rework of low reproducible quality art to achieve high reproduction quality.

(6) The subCLIN descriptions pertain to the initial and end product format (i.e., hardcopy to digital, or digital to digital). Deliverables required for review and end product media shall be furnished under this subCLIN as specified in the TMCR Work Statement/Task Order.

(7) Pages, which are merely renumbered or intentionally left blank to maintain sequential integrity; a page picked up as backup; or an unchanged page included in a revision or pick-up revision shall be furnished within the scope of the changed/new page efforts at no additional cost.

(8) Rollover information creating a new page shall be priced as Page Changes under subCLINs 0006AA and/or 0006AB.

(9) When a manual contains the same illustration, except for minor differences on various pages, the illustration shall only be priced once.

(10) Whenever any material furnished by the government is deemed inaccurate, inadequate, incomplete or unsuitable for inclusion in the aeronautical technical manuals for any reason other than minor inaccuracies of a non-technical nature or editorial corrections, the contractor shall notify the Ordering Officer with copies to the applicable Technical Publication Logistic Element Manager (LEM) assigned by the NAVAIR 3.3 TM Competency Lead and the CFA data manager. Reasons for notification will include but are not limited to: error in the page, paragraph, figure or technical manual number(s) cited; incompatibility with other data; obvious technical inconsistencies or contradictions; missing source data; need to change other material in the technical manuals cited or in other technical manuals to prevent contradiction or preserve compatibility. Upon receipt of such notification, the CFA will review the contractor's request and advise the contractor of action to be taken by (1) furnishing revised or additional source data, deleting source data, as applicable, providing other pertinent instructions or (2) providing rationale that no changes in source data are required. A modification to the TMCR Work Statement/Order, issued by the Ordering Officer, will be furnished as soon as possible after resolution of legitimate discrepancies, which will amend the source data listed in the order accordingly.

(11) The requirement for change pages to be furnished does not authorize deletion of existing information except when specifically requested in the TMCR Work Statement/Order and/or in the technical manual source data provided by the government, or when such changes reflect correction of obvious typographical errors, misstatements in procedures or parts identification. All change pages shall be prepared in the same style and format and in accordance with the same technical content specifications as

the manual(s) being changed, except as otherwise specified in the TMCR Work Statement/Order. Any corrections due to contractor error required as a result of government review shall be accomplished at no additional cost to the government.

(12) When the cumulative total of existing changed pages plus the pages affected by the current change exceed 60% of the manuals, under these circumstances, the preparing activity shall provide this information to the LEM and CFA data manager for consideration toward approving a revision. This information shall be furnished sufficiently in advance to permit the government to reach a decision without impairment of the delivery schedule. The Contractor shall be responsible for renumbering of pages, paragraphs, illustrations, and tables, as necessary, and for annotating title pages with supersedure notice and revision date.

(13) ILLUSTRATING. Utilizing government furnished source material, illustrative material to be furnished by the contractor may be original art or update or modification of existing art. Line art or drawings shall be of quality capable of maintaining consistent high density tonal values. When a manual contains the same illustration except for minor differences on various pages, the illustration shall only be priced once.

(14) EDITING. The contractor shall be responsible for grammatical editing as to language and spelling, correct usage of plural/singular, and shall ensure that all editing of changes/ revisions is accomplished against the latest issue of the basic manual including all subsequent changes. Contractor is not required to change an otherwise technically unaffected page for strictly editorial reasons unless authorized by a modified Task Order. Contractor shall ensure correction or elimination of discrepancies with regard to page numbering, correction of TM number wherever it appears, numbering sequence of paragraphs, figures, etc. which are not in accordance with existing format or format specifications cited in TMCR Work Statement/Task Order.

(15) Revisable master files shall encompass both text and illustrations and shall be furnished in any of the following formats as identified in the TMCR Work Statement/Order: For text: Standard Generalized Markup Language (SGML)/Extensible Markup Language (XML), ISO 8879 and MIL-PRF-28001C, using government furnished Document Type Definitions (DTDs) (e.g., NAVSEA C2 DTD, E-6 Program DTDs, etc.) Commercial Off-the-Shelf (COTS) formats developed form word processing software packages (e.g., Word, Interleaf, Ventura, etc.) as designated by the government. For illustrations: Digital delivery requirements of new or changed/revised illustrations shall be in any of the following formats as identified in the TMCR Work Statement/Task Order: For new illustrations: Computer Graphics Metafile 4 (CGM 4) in accordance with MIL-PRF-28003A For

revised illustrations: Computer Graphics Metafile 4 (CGM 4) in accordance with MIL-PRF-28003A or Interleaf, or other formats prepared from COTS software packages as authorized in the TMCR Work Statement/Task Order.

(16) CLASSIFICATION INFORMATION. Manual preparation and publishing involving classified material shall be performed in accordance with DOD 5220.22-M, Industrial Security Manual for Safeguarding Classified Information. All classified documents will be page and paragraph marked as required by DOD 5220.22-M, as modified by OPNAVINST 5510.1H, Department of the Navy Information and Personnel Security Program Regulation.

(17) QUALITY ASSURANCE REQUIREMENTS. Quality Assurance (QA) and Quality Control is the responsibility of the contractor. The QA requirements for all Technical Manuals to be procured shall be in accordance with ISO 9000-1-94, ISO 9000-2-93, ISO 9000-3-93, AND ISO 9000-4-93. Technical Manual Quality Assurance Program Guide, AL-855TM-GYD-000, shall be used for guidance in the operation of a Quality Assurance Program. In-process reviews of manual updates in process shall be conducted on as required basis as determined by the government. Secure on-line reviews between the contractor and Navy sites is preferred and the contractor must be capable of conducting any required on-line reviews.

~~CLIN 0008 ENGINEERING DRAWING CONVERSION DEFINITIONS:~~

~~The following conversion level descriptions are offered as a baseline to assist in the furnishing of Engineering Drawing Conversion firm fixed prices. The contractor is instructed to use the appropriate sections of the SOW. Attachement B-1, to provide firm fixed prices for the below items which provides the detailed specifications associated with completing Engineering Drawing Conversion.~~

~~**NOTE: The below descriptions specifically apply to Contract Line Item Number (CLIN) 0008, subCLINS 0008AA and 0008AB for the Base Period described in Section B – Supplies or Services and Prices/Costs of the RFP. These same description requirements shall apply to CLIN and SubCLINs contained in Option Period One, Option Period Two, and Option Period Three.**~~

~~**SubCLIN 0008AA:** Level 1, Raster Image: A scan of the original hardcopy drawing for conversion of the contents into a (bitmap) CALS Type 4 (C4) or PDF raster image. Conversion drawing sizes are specified in ASME Y14.1 / ASME Y14.1M current revision. Delivery of converted drawings and associated text shall be in CD-ROM. Data delivered to~~

~~the Government will be indexed in accordance with the Engineering Drawing Conversion specification contained in Attachment B-1 of the Statement of Work.~~

~~**SubCLIN 0008AB:** Level 3, Raster to Raster, The conversion of a raster type to another raster type. This would be for an example, the conversion of a TIFF or other type image file to a PDF or a CALS type 4 (C4) file. Conversion drawing sizes are specified in ASME Y14.1 / ASME Y14.1M current revision. Delivery of converted drawings and associated text shall be in CD-ROM. Data delivered to the Government will be indexed in accordance with the Engineering Drawing Conversion specification contained in Attachment B-1 of the Statement of Work.~~

CLIN 0008 ENGINEERING DRAWING CONVERSION DEFINITIONS:

The following conversion level descriptions are offered as a baseline to assist in the furnishing of Engineering Drawing Conversion firm fixed prices. The contractor is instructed to use the appropriate sections of the SOW, **Attachment** B-1, to provide firm fixed prices for the below items which provides the detailed specifications associated with completing Engineering Drawing Conversion.

NOTE: The below descriptions specifically apply to Contract Line Item Number (CLIN) 0008, subCLINS 0008AA, 0008AB, and 0008AC for the Base Period described in Section B – Supplies or Services and Prices/Costs of the RFP. These same description requirements shall apply to CLIN and SubCLINs contained in Option Period One, Option Period Two, and Option Period Three.

SubCLIN 0008AA: Level 1, Raster Image: A scan of the original hardcopy drawing for conversion of the contents into a CALS Type 4 (C4) file format. Conversion drawing sizes are specified in ASME Y14.1 / ASME Y14.1M current revision. Delivery of converted drawings and associated text shall be in CD-ROM. Data delivered to the Government will be indexed in accordance with the Engineering Drawing Conversion specification contained in Attachment B-1 of the Statement of Work.

SubCLIN 0008AB: Level 2, A scan of the original hardcopy drawing for conversion of the contents [redacted] file format. PDF files delivered for associated lists or text documents shall be supplied as multi sheet files for each single or multiple sheet list or document. Conversion drawing sizes are specified in ASME Y14.1 / ASME Y14.1M current revision. Delivery of converted drawings and associated text shall be in CD-ROM. Data delivered to the Government will be indexed in accordance with the Engineering Drawing Conversion specification contained in Attachment B-1 of the Statement of Work.

[redacted]